FISCAL YEAR 1981

RESEARCH AND

TECHNOLOGY PROGRAM

U.S. Department of Housing and Urban Development

Office of Policy Development and Research

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

CONTENTS

Introduction..... 1

I. Housing Assistance Research..... 12

II. Housing Safety and Standards Research..... 22

III. Housing Economic Data and Analyses..... 29

IV. Consumer and Equal Opportunity Research..... 32

V. Community Conservation Research..... 39

VI. Community Development Research..... 46

VII. Energy Conservation and Standards Research..... 52

VIII. Program Evaluation..... 59

IX. Research and Program Support and Utilization..... 64

INTRODUCTION

The 1981 Research and Technology Budget is the last to be submitted by the present top managers of the Office of Policy Development and Research. As such, it describes the results of more than three years of scrutiny, re-evaluation, and innovation.

It is not a budget for all seasons. But like our earlier budgets, it exactly reflects what, given budget restraints, this Office and the Department see as best meeting the research needs of the Nation in the area of housing, and urban development. Major areas of concern include:

- housing assistance research
- housing safety and standards research
- housing economic data and analyses
- consumer and equal opportunity research
- community conservation research
- community development research
- energy conservation and standards research
- program evaluation
- research program support and utilization

The text of this brochure breaks these broad categories down into particulars. I hope all readers will examine them closely. They show the extent of our work, and how it is directed toward our various constituencies. I, however, would like to put those details into a larger context.

Our view has been that the role of a policy and research office must be an active one, not so much to direct the decision-making process of the Department as to assure that the process is orderly and well-considered. Effectiveness in such a role is almost directly proportional to how the other participants in HUD perceive the quality, relevance, and evenhandedness of our work.

The single most important step we have taken toward that end is to integrate our research with our policy analysis. It is a two-way street. Sound policy making must be based on facts, not suppositions. Research, to be fully relevant, must be directed to key policy concerns. Done well, both functions are enriched.

READEX FICHE best copy available

Some have feared that bringing the two together might compromise the integrity of the research. Let me set that fear to rest. We operate in a goldfish bowl of free inquiry. Any attempt to influence or to suppress research findings would immediately be visible. The people on our staff and on the staffs at the organizations that perform our funded research just wouldn't stand still for that.

More importantly, our policy makers want to be informed, not misinformed. It is hard enough making policy decisions on the many difficult issues facing the Department without adding the blinders of biased or suppressed information.

We have, therefore, encouraged the policy staff to draw upon experts on the research side, and we have encouraged the research staff to audit policy drafts and discussions and to participate where they could make a contribution. We have stressed that where they see a researchable question in those policy processes, it should become part of their current agenda. Both processes are now working well.

Let me cite some examples. The Annual Housing Survey is the direct basis for setting Existing Fair Market Rents for Section 8 Assisted Housing. Our mobile home research has been the source for the mobile home standards and all recent improvements to them. Our policy study of condominium and cooperative conversion has generated planned demonstrations of financing innovations for existing multi-family projects. Policy questions about whether rural areas receive a fair share of Federal housing assistance resources generated a project to measure actual allocations against measured need. Our study of the wide range of uses for Home Mortgage Disclosure Act data provided the primary basis for Departmental testimony encouraging an extension of the Act. Our research on energy conservation in residential buildings has provided the principal input to the Department of Energy's construction conservation standards. Noise pollution research led to new buildings and project standards. Many more examples are possible.

Another of our commitments has been to quality. We were not going to waste time or money on doubtful or non-essential research. Thus, when we began our tenure, we took a calculated risk; we did not make full use of our available funding. To some, this delay suggested that we might be incapable of completing quality work at a high level of funding. What we demonstrated instead was that neither time nor funding pressures would be allowed to compromise our commitment to quality. Once the negative phase--the discarding of marginal or non-policy-relevant projects--was completed, we began on a series of positive steps to improve the program.

ACCOMPLISHMENTS

-- We instituted a process by which the Department's top policy makers could establish their highest research priorities, and thus permit us to narrow our focus to high-priority work.

-- We engaged noted scholars to reexamine the scope, quality, and gaps in existing research in those high-priority areas in order to develop new research agendas for each, aimed at answering the most pressing questions.

-- We raised our standards for career staff in order to assure that they could not only manage the work of others, but could also perform high quality research themselves.

-- We brought into the Office for one-year terms visiting scholars on leaves of absence from their own institutions. Their presence enhances our research capabilities and brings fresh insight to the Department.

-- We moved from passive monitoring of externally funded work to actively involving ourselves in designing research and analyzing findings.

-- We made it possible for researchers in academic institutions to participate more fully in our work. Previously many of them had lost interest or had been shut out by the emphasis on contract research (as opposed to the grant process with which they are more familiar).

-- We have made a substantially greater effort to disseminate our research findings, both to the public and to specialists. At the one extreme, we have made the findings of our Annual Housing Survey easily accessible to the public through a series of brief, laymen's language summaries, each focusing on a particular housing group, such as the elderly or Hispanics. At the other extreme, through time-sharing computer terminals connected by telephone to our data base, we are making the huge volume of computerized data arising out of our research (such as the Experimental Housing Allowance Program) directly available to independent researchers for further analysis and study.

-- we have made special efforts to bring women and minorities into the conduct of our work, both by bringing them onto our own staff and by setting up innovative requirements and incentives for our contractors and grantees.

-- Internally, we have dramatically increased our capacity for timely responses to the Secretary and Under Secretary for policy analysis and support. The upgrading of our in-house staff has been the principal means, but we have also developed innovative procedures for funded research, to permit much shorter turn-around times.

The scope of these changes is large, but it was accomplished quietly and gradually, in ways that did not disrupt either the morale of the staff or the operations of the office. More importantly, the changes have been institutionalized. PD&R should be permanently the better for them as it is better for the leadership of the Deputy Assistant Secretaries who have so admirably directed the work of the three branches of this office: David Garrison of Policy Development; Katherine Lyall and, following her, Elizabeth Roistacher of Economic Affairs; Raymond Struyk and, after him, Michael Stegman of Research. They and the professionals and suppport staff of Policy Development and Research have made our achievements not only possible but almost inevitable.

The 1981 research and evaluation agenda presented here builds upon these accomplishments and represents a lean but effective program targeted to HUD's priority research needs.

Donna E. Shalala
Assistant Secretary
For Policy Development
and Research

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

POLICY DEVELOPMENT AND RESEARCH

RESEARCH AND TECHNOLOGY

PROGRAM HIGHLIGHTS

	ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981	INCREASE + DECREASE - 1981 vs 1980
			(Dollars in Thousands)		
Obligations (Net)	$57,146	$53,000	$50,091	$54,000	+$3,909
Appropriations	57,250 a/	53,000	49,650	54,000	+4,350
Budget Outlays	63,555	53,800	54,690	53,570	-1,120

a/ Excludes $250 thousand transferred to the Federal Emergency Management Agency (FEMA).

SUMMARY OF BUDGET ESTIMATES

1. SUMMARY OF BUDGET REQUEST

The 1981 Budget proposes an appropriation of $54,000,000 for the development and implementation of research, demonstration and evaluation programs administered by the Assistant Secretary for Policy Development and Research.

2. CHANGE FROM ORIGINAL 1980 BUDGET ESTIMATES

The 1980 appropriation request was reduced $3,350,000 by Congressional action. This reduction accounts for the decrease in the obligation estimate. A small increase in the 1980 outlay estimate is projected.

EXPLANATION OF INCREASES AND DECREASES

The Budget reflects a net increase of $3,909,000 in the 1981 program level. The program level of $50,091,000 for 1980 includes projects to be funded from the 1980 appropriation of $49,650,000 as well as $441,000 of unobligated balance carried over from 1979. Significant items of change in obligations for contracts, grants and cooperative agreements for 1981 are as follows:

-- A net decrease of $2,457,000 in Housing Assistance Research primarily due to the completion of the Experimental Housing Allowance Program (EHAP) in 1981.

-- A net increase of $1,050,000 in Housing Safety and Standards Research resulting from the emphasis on improved housing and systems dedicated to cost and energy savings, plus the effort to develop model rehabilitation guidelines for housing.

-- A net increase of $680,000 in Housing Economic Data and Analyses reflecting increasing analyses to take advantage of data provided by the Annual Housing Survey to address policy, program development and market analysis issues.

-- A net increase of $1,205,000 in Consumer and Equal Opportunity Research resulting primarily from the attention given to improving the delivery of housing and related services to rural areas.

-- A net increase of $120,000 in Community Conservation Research reflecting the continued activities promoting neighborhood preservation, housing maintenance, rehabilitation and reinvestment.

Research and Technology

-- A net decrease of $318,000 in Community Development Research resulting from the maturation of the local government financial management capacity sharing program.

-- A net increase of $1,100,000 in Energy Conservation and Standards Research reflecting the priorities assigned to energy related research.

-- An increase of $2,175,000 in Program Evaluation, as studies initiated in 1979 and 1980 are continued and major new evaluations are added in such areas as Housing Assistance Plans, Fair Housing and HUD's environmental quality policies.

The appropriation request is increased by $4,350,000 as a result of the above changes.

Outlays are projected to decrease slightly in 1981 due to the lower obligated balance to be carried over from 1980.

PROGRAM DESCRIPTION

1. Legislative Authority. Title V of the Housing and Community Development Act of 1970, as amended, authorizes and directs the Secretary to undertake programs of research, studies, testing, and demonstration relating to the mission and programs of the Department. In order to assure effective use of these activities, the Secretary is authorized to disseminate significant reports, data, and information to departments and agencies of Federal, State and local governments, to industry, and to the general public.

The 1980 program contains research in areas provided with separate authorizations for appropriations by the Congress. Among these are housing allowances, housing abandonment, lead-based paint hazards, and housing for those with special needs, such as the elderly and the handicapped. Because the general research authorization of Sections 501 and 502 of the HUD Act of 1970 is broad enough to cover such activities, these programs will continue to be funded under the Research and Technology appropriation rather than under separate appropriations.

Solar energy and other energy conservation activities are conducted in cooperation with the Department of Energy under HUD's general research authority, as well as that provided by the Solar Heating and Cooling Demonstration Act of 1974 and the Energy Conservation and Production Act of 1976.

2. Policy Development and Research Organization. The Assistant Secretary for Policy Development and Research (PD&R) is responsible for the development, planning, execution, and evaluation of HUD research and demonstration programs; for assisting in the formulation of Department policy; and for disseminating HUD research results. In addition, the PD&R organization has principal responsibility for providing program evaluation, economic and policy analysis, and staff assistance to the Secretary in determining national housing and community development goals, program priorities, and objectives.

PD&R administers the Research and Technology appropriation, which is HUD's largest single funding source for carrying out research and evaluations. PD&R also administers the residential demonstration portion of the national program for development of solar heating and cooling applications, and the development program for energy performance standards for new buildings. These energy programs are funded by transfers from the Department of Energy.

3. Goals of the Research Program. HUD's research program continues to serve as a focal point for research, analysis, data collection, and dissemination of concerns and issues related to the major programs and objectives of the Department.

Research and Technology

In 1981 the program will be concentrated on a set of research areas developed jointly with the operating program areas and consisting of the following: ways to reduce the component costs of housing (cost of developing, building, financing and operating) and to be more efficient in helping lower income people afford housing through subsidy programs; more efficient ways to bring about the conservation of energy resources in the construction and operation of housing, and development of "how to" documents on innovative residential energy projects for use by State and local governments and the private sector; urban economic development; public finance and tax policy, including the role of small business in community development; changes in capital investment by cities and the impact of Federal tax and grant policies on central cities; how to provide housing needs and services for special users, such as the elderly and handicapped; the process of neighborhood change and intervention techniques designed to preserve neighborhoods by preventing and reversing decline; issues of economic and racial freedom of choice in housing and how changes in demographics may affect trends in location patterns; alternative housing finance mechanisms, such as alternative mortgage instruments, financial institution regulation and reform, and alternative tax and other financial incentives for housing; ways to make better use of technology in urban systems, to improve and maintain the vitality of communities within affordable tax levels; and evaluation of key elements of the Department's operating programs. Key evaluations continuing through 1981 include the community development strategies evaluation, the Brookings' CDBG monitoring study, the Section 8 evaluation and programs to help local government officials improve their financial management capacity.

4. Changes to Budget Structure. In Category II, the subcategory 2.2, Lead Paint Hazards, has been deleted, and work on this research program will now be included under a new broader subcategory 6.2, Environmental Studies, in Category VI, Community Development Research. This change reflects HUD's shift into research on other significant environmental hazards in addition to lead hazard research. A new subcategory 4.4, Rural Housing, has been added under Category IV, Consumer and Equal Opportunity Research, to emphasize the work being done in this important area. Previously, rural housing research was shown as part of subcategory 4.2, Housing Needs of Special Users. Subcategory 6.4 in Category VI has been retitled Community Growth and Land Use, and the environmental issues previously addressed in this section have been shifted to the new subcategory 6.2.

Subcategory 7.3 under Category VII, Energy Conservation and Standards Research, has been discontinued and work under this section has been merged with that in subcategory 7.1, retitled Energy Conservation and Utilities Research. Work under the two sections has become increasingly overlapping as energy matters have received priority attention.

5. Program Synopsis. The following narrative program summary corresponds to the structure of the funding summary table on page N-7 and of the full program descriptions which begin on page N-8.

I. Housing Assistance Research. These research activities are directed at testing new housing assistance programs and improving the Department's existing assistance programs. By the end of 1981, the third and final part of the Experimental Housing Allowance Program (EHAP) will be completed. Data and analytical products from EHAP will be merged with information from the Section 8 Research Program to suggest and evaluate potential modifications and improvements in the operation and administration of current housing programs.

The Section 8 Research Program is an ongoing effort to provide policy makers and program managers with up-to-date information on the workings of the program, which will permit them to increase the effectiveness and efficiency of the Department's major housing assistance program. The findings from the first phase of the research program indicate that the Section 8 Existing Housing Program has achieved some early success in terms of its statutory objectives and its impact on people and housing units.

Continuing in 1981, a second phase of the Section 8 Research Program will analyze the outcomes of its major components--existing housing, new construction, and substantial rehabilitation. One study will look at the existing housing and new construction program in rural areas. Research will be initiated in 1981 to look at the Section 8 Substantial Rehabilitation Program and to examine the extent of economic and racial deconcentration occurring under Section 8. Another effort, continuing into 1981, will study comparative development costs under HUD multifamily housing programs. Two other research projects have addressed housing-quality inspections and income verification issues. The latter has already provided a basis for administrative changes in the Section 8 Program.

Housing management research seeks to improve the management of HUD's assisted housing programs and to ensure that adequate housing services are provided to the low-income families served by those programs. Guided by a recently developed comprehensive housing management research agenda, these issues will be addressed: providing for more effective delivery of public housing services; ensuring adequate funding levels for public housing operations; and, providing for adequate maintenance of the public housing stock. Scheduled for 1981 is a review and analysis of public housing operations in troubled projects to determine the most effective management practices for alleviating or preventing their decline. Parallel research is also being conducted to address and seek remedies for the financial, managerial and operational problems experienced by a significant number of HUD insured and assisted multifamily developments.

Research in assisted housing utilizes, among other sources, data from EHAP, the Section 8 Research Program, and the Annual Housing Survey to further HUD's understanding of housing market behavior, to enhance policy-making in this area, and, to improve the operations of current departmental programs. These data will also be made available to universities and other institutions for independent research and analysis, to broaden the range of inquiry and insight brought to bear on the Department's problems. By 1981, it is expected that a Housing Research Data Center will be operational and accessible to industry analysts and the public.

II. Housing Safety and Standards Research. Work in this area tests and evaluates specific means to improve quality and reduce personal and financial risks for housing and mobile home occupants and owners, without substantially increasing costs. Major categories include: research to improve the safety, durability, habitability, and cost-effectiveness of existing and new housing systems and components; research concerned with improving the life safety and long-term durability of mobile homes; and, the identification, analysis, and resolution of issues hampering the administration and enforcement of the many codes and standards which govern the Nation's housing stock.

III. Housing Economic Data and Analyses. The projects in this area of research provide essential information about the quality and supply of the Nation's housing stock. They also track housing and mortgage market trends and demographic changes which relate to housing and urban problems. The information is used by HUD and other public and private decision makers to assess changing housing conditions and needs. The largest single project is the ongoing Annual Housing Survey. It measures changes in housing inventory and compiles data, in both urban and rural areas, on the physical condition of housing units, the neighborhoods in which they are located, and the characteristics of the occupants. Other work includes the effects of Federal and local tax policies on the production and location of new housing, the economics of preserving existing housing and neighborhoods, the policy and program implications of urban economics studies, assessments of alternative housing finance instruments, and surveys of mortgage market activity.

IV. Consumer and Equal Opportunity Research. This research is conducted to improve HUD's equal opportunity and fair housing compliance programs by increasing available information about discriminatory practices and their effects,

and by identifying and testing techniques to detect discrimination and expand housing opportunities. In 1980 and 1981 efforts will be directed to: (1) assess the extent to which the opportunities of households with children are restricted by no-children policies, and (2) educate lending institutions about women's credit worthiness and thereby facilitate the entry of women into the mortgage market. Programs are also conducted to provide improved living environments for persons with special housing needs such as the elderly, the handicapped, and those living in small cities and rural areas. Activities are also aimed at improving homeownership opportunities for low- and moderate-income families through the development and testing of counseling and consumer information and assistance.

Specific projects in this area include: a demonstration that fair housing groups, by working cooperatively with HUD, can identify and rectify instances of housing discrimination (this demonstration complements the Community Housing Resource Board fair housing assistance initiative to be conducted by the Assistant Secretary for Fair Housing and Equal Opportunity); continuation of the study of discrimination practices by the lending industry; a longitudinal study of the housing adjustments of older people; an evaluation of a pilot demonstration to provide home maintenance service for the elderly in Baltimore, a multicity Elderly Home Maintenance and Repair Demonstration; and, the continuation of work on the development and demonstration of better methods of delivering housing and community development services to rural areas.

V. Community Conservation Research. This work examines the dynamics of the residential environment and measures the effectiveness of policies designed to preserve or improve the quality of neighborhoods. A key focus in 1981 will be research to assess the impact of factors external to a neighborhood on that neighborhood's internal dynamics, such as local and Federal reinvestment policies, private market activities, and other exogenous forces. This work will build on previous analyses of neighborhood deterioration, revitalization, and displacement to address certain issues including the impact on older urban and inner-suburban neighborhoods of population flows from central-city neighborhoods, and the indirect impact on neighborhoods left out of targeted preservation/revitalization programs. This research will suggest policies and techniques to alleviate adverse, uncontrolled, or unintended impacts on other areas in the city of targeted reinvestment programs.

Other activities include security research, which seeks to develop practical tools and strategies and short- and long-term solutions to reduce crime and the fear of crime in housing developments and neighborhoods; and community design research, which deals with the planning, design, and management of the physical environment of neighborhoods. In 1981 this program will continue to explore and identify relevant principles of design and management to assist in solving urban problems.

VI. Community Development Research. Programs are conducted to help State and local governments develop and adopt improvements in policy analysis and management to deal with public finance problems, assess the environmental impact of HUD programs, and better understand patterns and trends in national and community growth and decline. Work will continue on technical assistance in financial management. Programs to build local capacities to involve more minorities and women will be pursued.

Research to assist State and local governments to deal with the problems of economic development and public finance will focus on six key issues: urban capital infrastructure; public pensions; public-private linkages in economic development; the State role in economic development; land use and housing costs; and, urban impact analysis, with substantially increased commitment of resources to this last issue. Environmental research activities related to housing, urban revitalization and development will also be conducted. Lead poisoning research which, heretofore, has been included under the Housing Safety and Standards Program, is now a part of the broader environmental research program. Current

findings strongly indicate that the problem of lead poisoning or exposure is not specifically a housing problem but rather a more general environmental problem.

The research about natural hazards, previously conducted by HUD, has now been transferred to the newly created Federal Emergency Management Agency (FEMA).

VII. Energy Conservation and Standards Research. HUD, in cooperation with the Department of Energy and other agencies, has been encouraging the development and use of new energy conserving designs, methods, and standards for all types of new and existing residences, including mobile homes. Major activities in 1981 include: the design and demonstration of energy efficient rehabilitation techniques; demonstration and evaluation of new energy efficient systems for residential structures; continuation of a project to develop energy conservation manuals; energy audit procedures for Public Housing Authorities; and, continuation of research on the effects of building mass on energy use.

Community utilities research seeks to develop on-site systems that are innovative, practical, and conservative of resources, including fuel and water. Activities in 1981 will include: (1) the development of long-range planning guidelines for water conservation and reuse; and, (2) demonstrations of water efficient households systems and appliances in single-family houses, multifamily buildings, and communities.

VIII. Program Evaluation. These efforts are designed to provide HUD's principal staff with timely and policy relevant information about the cost, impact, equity, and effectiveness of Department programs in achieving their goals. The 1981 effort will continue to focus on evaluating the Department's major operating programs. Major ongoing studies continuing through 1981 include the community development strategies evaluation, the Brookings' CDBG monitoring study, Section 8 and, the urban initiatives evaluation. Major studies scheduled to be initiated in 1981 include the evaluation of Housing Assistance Plans, the evaluation of State Fair Housing Agencies, the evaluation of HUD's environmental quality policies, and the evaluation of graduated mortgages and coinsurance.

IX. Research Program Support and Utilization. These activities include the improvement of program control functions, the supplying of miscellaneous services which support more than one research program, the operation of the research management information system, and the dissemination and transfer of research results. Funding for dissemination activities continues to grow, as new and improved means are devised to reach the audiences for which specific research projects are intended, and then to assist them in using the results.

RESEARCH AND TECHNOLOGY BUDGET SUMMARY
(Dollars in Thousands)

Research and Technology	ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981	INCREASE + DECREASE - 1981 vs 1980	PAGE NO.
I. HOUSING ASSISTANCE RESEARCH	$8,528	$9,800	$9,613	$7,156	-$2,457	N-8
1.1 Experimental Housing Assistance (EHAP)	4,863	4,300	4,613	1,400	-3,213	N-8
1.2 Section 8 Housing Assistance	1,627	2,000	1,500	2,350	+850	N-10
1.3 Management of Assisted Housing	1,754	2,100	2,500	2,750	+250	N-12
1.4 Assisted Housing Policy Research	284	1,400	1,000	656	-344	N-16
II. HOUSING SAFETY AND STANDARDS RESEARCH	3,994	2,892	2,650	3,700	+1,050	N-18
2.1 Residential Safety and Technology	1,933	1,542	1,400	2,181	+781	N-18
2.2 Lead Paint Hazards	566	400	400	...	-400	N-21
2.3 Mobile Homes	618	500	400	500	+100	N-22
2.4 Codes Administration	877	450	450	1,019	+569	N-23
III. HOUSING ECONOMIC DATA AND ANALYSES	12,367	15,110	14,570	15,250	+680	N-25
3.1 Surveys of Housing	9,971	13,010	12,607	12,635	+28	N-25
3.2 Housing and Financial Market Studies	2,396	2,100	1,963	2,615	+652	N-26
IV. CONSUMER AND EQUAL OPPORTUNITY RESEARCH	5,633	5,250	3,195	4,400	+1,205	N-28
4.1 Fair Housing and Equal Opportunity	1,200	900	400	550	+150	N-28
4.2 Housing Needs of Special Users	2,457	3,500	2,145	1,900	-245	N-30
4.3 Housing Counseling and Consumer Aids	1,976	850	650	600	-50	N-32
4.4 Rural Housing	...	...	...	1,350	+1,350	N-34
V. COMMUNITY CONSERVATION RESEARCH	11,362	3,050	3,205	3,325	+120	N-35
VI. COMMUNITY DEVELOPMENT RESEARCH	5,166	6,435	7,058	6,740	-318	N-42
6.1 State and Local Policy Analysis	2,912	3,820	4,548	4,115	-433	N-42
6.2 Environmental Studies	...	...	...	475	+475	N-45
6.3 Economic Development and Public Finance	1,755	1,600	1,835	1,550	-285	N-46
6.4 Community Growth and Land Use	499	1,015	675	600	-75	N-47
VII. ENERGY CONSERVATION AND STANDARDS RESEARCH	2,349	1,900	1,700	2,800	+1,100	N-48
7.1 Energy Conservation and Utilities Research	1,275	1,400	1,200	2,800	+1,600	N-48
7.2 Solar Heating & Cooling	...	...	...	...	...	N-53
7.3 Utilities and Energy Systems	1,074	500	500	...	-500	N-54
(DOE Transfers)	(15,980)	(6,350)	(11,000)	(5,000)	-(6,000)	
VIII. PROGRAM EVALUATION	6,083	5,863	5,050	7,225	+2,175	N-55
IX. RESEARCH PROGRAM SUPPORT & UTILIZATION	1,664	2,700	3,050	3,404	+354	N-60
9.1 Program Planning & Management	775	1,200	1,550	1,585	+35	N-60
9.2 Transferring Research Results	889	1,500	1,500	1,819	+319	N-60
Total	57,146	53,000	50,091	54,000	+3,909	

I. HOUSING ASSISTANCE RESEARCH

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$8,528	$9,800	$9,613	$7,156

1.1 Experimental Housing Assistance (EHAP)

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$4,863	$4,300	$4,613	$1,400

The Experimental Housing Allowance Program (EHAP) will be completed in 1981. It has been carried out in accordance with the authorization of Section 504 of the Housing Acts of 1970 and 1974, as amended, which directed that the concept of housing allowances be tested.

EHAP was designed to answer three basic sets of questions. Three different, yet interrelated, experiments were designed: the Demand Experiment to answer "how do families respond to housing allowances?"; the Supply Experiment to answer "how are housing markets affected by allowances?"; and the Administrative Agency Experiment to answer "how might such a program be administered and what are its administrative costs?".

The Administrative Agency Experiment was completed in 1977. The Demand Experiment will be completed in 1980 and the Supply Experiment will be completed in 1981. EHAP involved over 30,000 households: it was tested in twelve different areas of the nation; it provided about a billion items of data; and resulted in the production of over 300 technical reports.

As required by the 1970 and 1974 Acts, the Department submitted progress reports on EHAP to the Congress in 1973, 1974, and 1976. In addition to these, summary reports on findings from EHAP were published and delivered to the Congress in 1975, 1978, and 1979. Another is being prepared and will be delivered in 1980.

Because EHAP represents such a significant investment of Federal dollars, its design, analyses, and findings have been continuously submitted to experts in the field of housing for their scrutiny. For example, there were two major conferences on EHAP in 1979 and 1980. One, organized by HUD, concentrated on technical analyses and findings from the experiments. The other, conducted by the Brookings Institution, focused on the design, analyses, and findings of EHAP, as well as implications for housing policy and social experimentation in general. The proceedings of both conferences will be published in 1980.

Prior to EHAP there was very little agreement as to the answer to any of the questions EHAP was designed to address. Now there are empirically-based answers to each of these issues. In fact, the quality and quantity of knowledge about housing allowances (and therefore similar program approaches) now greatly exceeds what is known about other types of housing programs. To date, the key findings are:

-- Less than half of the income-eligible population participates. Approximately 20 percent of all households would be income eligible for a housing allowance program. When offered housing allowances upon condition that they will occupy decent, safe, and sanitary housing, approximately 50 percent of all eligible rent-

ers and 30 percent of all eligible homeowners participate by enrolling and then complying with the program's housing standards, thus qualifying for payments.

-- A majority of eligible households live in substandard housing. The percentage of households that occupy substandard dwelling units prior to the program varies by site and with the stringency of the housing standards. Using housing standards based on American Public Health Association criteria, professional inspection of dwelling units revealed that 85 percent of income-eligible renters' units in Pittsburgh were unacceptable. In Brown County, Wisconsin, which has above-average-quality housing stock, and where a slightly less stringent housing standard was used, 48 percent were judged unacceptable.

-- The larger the percentage of households living in substandard housing, the smaller the percentage that participate in the program. In Pittsburgh, only about 30 percent of the enrolled renters in substandard housing later qualified for payments by moving to a standard unit or obtaining repairs to their existing units; in Brown County, 78 percent qualified.

-- Standards and payments affect participation. Eligible households are willing to make minor repairs, but are reluctant to move in order to qualify for payments. Raising the minimum acceptable housing quality standard causes participation to drop substantially. Substantially increasing payments produces only modest increases in participation.

-- Less than a fourth of all payments goes to improved housing. All recipients must live in standard housing and spend at least as much for housing as the amount of their allowance payment. Still, most of the allowance payment is used to decrease the typically high housing cost burden of low-income families.

-- Payments must be tied to housing standards in order to assure that families live in safe, sanitary, structurally sound dwelling units. When allowances are not earmarked for housing improvement, relatively few enrollees voluntarily attempt to improve their housing quality. To obtain such improvements, the use of standards is essential. Among families that receive payments not linked to housing, approximately two thirds would not live in standard housing.

-- Mobility is determined less by payments than by other factors. Residential mobility is not particularly affected by program participation. Location of residence is governed largely by ties to relatives, neighborhoods, friends, workplaces, schools, and previous mobility patterns.

-- Housing allowances have little effect on housing prices. A full-scale, open enrollment housing allowance program has no perceptible effect on rents in either a tight or a loose housing market. The increment to total housing demand is relatively small, and the program's housing requirements can usually be met by inexpensive repairs.

-- Allowances do not stimulate new construction or major rehabilitation. However, they do increase the supply of decent, safe, and sanitary dwellings by encouraging repairs to existing housing.

-- Costs. When participants contribute a fourth of their incomes toward their housing expenses and are required to live in standard housing, the program costs about $1,150 annually per household: $900 of allowance payments and $250 for administration (1976 dollars).

In addition to providing answers to the original issues, the results from EHAP are continuously being used within the Department to help shape its operating programs. They have, for example, been used to design and modify the Section 8 Existing Program, and to address other major policy issues. Also, the EHAP data on housing markets and choices of low-income households provide information at a level of

detail and with completeness not previously available from other sources. It is expected that this rich body of data will be used by HUD and other analysts for many years to come. (Budget subcategory 1.4 describes how these data will be made available.)

When EHAP ends in 1981, it is estimated that its costs will total $163.1 million. Of this amount $74.1 million will have been from Section 23 Annual Contribution Contract payments and the remaining $89.0 million from Research and Technology obligations. The current request of $1.4 million for 1981 completes the funding for the EHAP program.

1.2 Section 8 Housing Assistance Research

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$1,627	$2,000	$1,500	$2,350

The Section 8 Housing Assistance Payments Program is currently HUD's major program to assist lower income families in meeting their housing needs. It is important, therefore, for the Department to have a continuing assessment of how well all components of the program are meeting the goals established for it by the Congress. It is to this concern that the Section 8 Housing Assistance Research budget is addressed. Specifically, this research and evaluation activity seeks to answer questions such as these:

-- Who is being served and who is not, among eligible families?

-- In what ways do families benefit from the program?

-- How does housing quality change for participants?

-- What effect does the program have on racial and economic deconcentration?

-- What are the costs of the program and what are the factors which affect these costs?

Answering such questions will provide a solid basis for implementing program improvements.

The first phase of this program concentrated on the existing housing component of Section 8. It found that the Section 8 Existing Housing Program has achieved some early successes in meeting its statutory objectives. Some of the principal findings include:

-- Actual recipients were generally representative of the eligible population, except that there was a disproportionately large share of elderly women and non-elderly female-headed households with children.

-- About half of the recipient households had members who were elderly, handicapped, or disabled.

-- One-third of all recipients changed neighborhoods.

-- The most important reason cited for moving was to reduce over-crowding.

-- For the average recipient, housing expenses were reduced by approximately half, from over 40 to 22 percent of gross income.

-- Under the program, the average recipient's out-of-pocket contribution was $64 per month, and the average government subsidy was $103 per month.

-- On the average, program recipients were contributing $55 per month less for rent than they were before becoming recipients.

-- The program recruited many owners and managers of properties who had not previously participated in a federally-sponsored housing program, especially landlords owning a very small number of units and landlords occupying units on the same property as Section 8 recipients.

-- Landlords did not consider Section 8 recipients to be problem tenants. At least 90 percent of the landlords found Section 8 tenants equally or more responsible than other tenants in maintaining property, paying rent, and getting along with neighbors. Ninety percent of the landlords would also consider leasing additional units to Section 8 recipients.

-- Thirty-seven percent of all units ultimately subsidized required repairs (41 percent of movers' units and 33 percent of stayers' units).

-- All those involved in the program at the local level -- participating households, households who applied but were unable to participate, landlords, and local officials -- expressed a high degree of satisfaction with the way the program was administered.

A second phase of Section 8 Program Research and Evaluation began in 1979 and is now examining all three major components of the Section 8 Program -- Existing Housing, New Construction and Substantial Rehabilitation.

New Construction and Existing Housing in Urban Areas

One study, begun in 1979 and with results scheduled for mid-1980, is looking at the Existing Housing and New Construction Programs in urban (SMSA) areas. The major focus of this study is on improvements or changes in the quality of housing occupied by program participants before and after entering the program. Also included are detailed analyses of who participates in the program.

Section 8 in Rural Areas

A second study, begun in 1980 and scheduled to run until mid-1981, is reviewing the Existing Housing and New Construction Programs in rural areas. This study is designed to complement the urban study, and it will address many of the same issues, such as housing quality change and the characteristics of the participants in rural areas. An additional element of this study is the variations in administrative environments within which the program operates, and their effects upon participants and their benefits.

Impact on Housing Stock

A third study, to be completed in 1980, is assessing the extent of repairs and maintenance which occurs in units being leased under the Section 8 Existing Housing Program in urban SMSAs. This study will provide detailed data for assessing the impact of the program on the housing stock and the improvement in housing that results for program participants.

Administrative Fees

Another project is examining the administrative fees paid by HUD to the Public Housing Agencies (PHAs) which manage the Section 8 Existing Housing Program. It

will evaluate the determinants of these costs and recommend a fee structure which better matches the actual costs incurred in the program. The study started in 1979 and will be completed in 1980.

Other Key Administrative Issues

In addition, a series of case studies of PHA administrative practices has begun in 1980. They examine the current processes and procedures in local administration of the program and how HUD monitors them. Particular attention is paid to key administrative elements such as the assessment of unit quality, rent reasonableness, income certification, use of PHA fees, and controls to prevent fraud and abuse. The results of these case studies are due early in calendar year 1980.

Multifamily Development and Financing Costs

A study of development and financing costs of HUD multifamily housing will begin in late 1980. It will increase the understanding of the various costs of HUD sponsored construction and rehabilitation programs. The study will concentrate on Section 8 New Construction, Section 8 Substantial Rehabilitation, and Low-income Public Housing. Subsidized Sec. 221(d)(4) developments will also be included for comparative purposes. An exploratory phase to test the feasibility of the study was done in 1979. The study will continue into 1981.

Substantial Rehabilitation

The Section 8 Substantial Rehabilitation Program plays an important role in the Section 8 Program. However, there is a need to collect empirical data about who is being served by this program and the extent to which the program helps participating families improve their housing condition. The Substantial Rehabilitation Participation and Benefits Study beginning in 1981 will seek to answer these questions.

Racial and Economic Integration

In 1981, the Department will study the degree of economic and racial deconcentration sought and achieved by participants in the Section 8 Program. Data will be collected on the location of Section 8 participants' residences before and after receiving Section 8 assistance. In 1982 data from the 1980 Census will be used to determine the socio-economic characteristics of the participants' pre- and post-Section 8 neighborhoods. Combining the change of location data with before and after characteristics will reveal the nature of the changes that have occurred.

1.3 Management of Assisted Housing

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$1,754	$2,100	$2,500	$2,750

This research program is designed to support the Department's efforts to improve the operations of federally-assisted low- and moderate-income multifamily housing, including the public housing and insured and subsidized inventory. Severe problems have beset an increasing number of these housing projects in recent years. This has resulted in inadequate housing services for project residents, neighborhood instability, and significant occurrences of mortgage default and foreclosure in HUD-insured projects. The assisted housing management research program seeks to remedy these problems through the development and testing of innovative methods for treating financial and operational distress. Emphasis in this program is placed on devising ways to improve the delivery of housing services in

assisted housing, to ensure the financial viability of assisted housing, and to preserve the assisted housing physical inventory.

Public Housing Management Research

A wide range of financial, managerial, physical, and social problems increasingly burdens public housing authorities in their efforts to provide decent public housing for the Nation's poor. Research in the public housing area--both past and current--addresses these major issues in three areas: providing for more effective delivery of public housing services, ensuring adequate funding levels for public housing operations, and, providing for adequate maintenance of the public housing stock. Future work will be guided by a recently developed comprehensive research agenda. The Department will also continue to seek the participation of housing management professionals in its public housing research program. A formal agreement with the National Association of Housing and Redevelopment Officials to participate in the development and review of research projects will help assure the relevance of the work for practitioners in the field.

(1) More effective delivery of public housing services

Among the new public housing research efforts to be conducted in 1981 will be a review and analysis of public housing operations to determine the most effective management practices for alleviating and preventing troubled project conditions. A series of case studies of successful public housing authority operations will be the vehicle for determining and documenting effective practices. The National Tenant Management Demonstration, designed to assess whether and under what circumstances the management of public housing projects by the tenants themselves can improve the operating performance of public housing, has recently reached the end of a three-year demonstration period. A comprehensive report evaluating the demonstration will be available during 1980. In addition, a follow-up evaluation will be conducted at those sites which have received additional funding to continue their tenant management operations for another two years. The extended evaluation will examine tenant management's record over the two-year period in a more "real world" (non-demonstration) situation, as the public housing authorities/tenant management corporations assume responsibility for directing their own programs, without the technical assistance that was available during the demonstration. This effort is expected to be completed in 1981.

Under the Housing Management Curriculum Development Program, curriculum materials have been produced over the past few years to upgrade the capabilities of multifamily housing managers. Six courses designed for college students and eighteen workshop packages intended for housing managers have been completed and will be ready for use shortly. A national dissemination effort is currently in the early stages of market analysis and design, with the actual dissemination to universities, public housing authorities, and other organizations to occur in stages in 1980.

Also in the training area, an Hispanic housing management component and career development program has recently been completed. These materials will help non-Hispanic managers of predominantly Hispanic housing projects acquire the skills necessary to improve the quality of life for Hispanic residents, and they will also help and upgrade the qualifications of Hispanics in the housing management field.

Other recently completed work includes an evaluation of the Small Housing Authority Demonstration Program, an evaluation of selected Target Projects Program developments, and a longitudinal study of housing management systems and performance.

In support of the effort to provide more effective public housing services, the characteristics of a sample of 10,000 households residing in public housing in 1979 have recently been surveyed, with the results to be available in 1980. These

data including demographic and income information, update an earlier survey of tenant characteristics taken in 1976, and make it possible to assess changes in the tenant population over the three-year period. Using these data, in-house research is currently underway to assess progress in implementing that section of the Housing and Community Development Act of 1974 which directs public housing authorities to maintain a broad range of tenant incomes within their public housing projects. The research will examine changes in public housing authority income, demographics of tenant populations, and public housing authority admission and occupancy policies, assessing the relationships among these factors.

In addition, the development of a wage-rate determination process is nearing completion. This process will provide the Department with a methodology for determining on a uniform and more equitable basis the compensation for maintenance personnel in public housing, based upon wage rates that are prevailing for similar work in the local labor market, as required by Davis-Bacon provisions of the housing statutes.

New work, which will be initiated in this area in 1980 and continue into 1981, will build on prior work to examine public housing operations and management performance to determine the most effective methods of providing public housing services. The critical factors affecting management performance will be isolated and current management methods will be analyzed to identify those administrative practices which are most effective and least costly. This will provide a data base for developing direct performance standards and adequate service levels for public housing. A series of case studies of successful housing management innovation will be conducted as an important part of this effort.

One of the first projects to be undertaken in this area will be an assessment of the Management Assistance/Project Based Budgeting Program, one component of the Department's Public Housing Urban Initiatives Program. This study will assist the Department in evaluating the public housing authorities' efforts to develop detailed expenditure and income projections at the project level.

(2) Adequate funding levels for public housing operations

A large-scale evaluation of the Performance Funding System has been initiated and is well underway. The System is the current mechanism used by HUD to allocate operating subsidies to housing authorities. When completed in 1980, the evaluation will provide the basis for recommended short-term and long-term actions which should be taken to improve the Performance Funding System. The research will also lay the groundwork for the future development of an improved mechanism for allocating operating subsidies, one that will relate actual, local costs to norms for specific service delivery levels, and have built-in incentives for improved management. In addition, in 1981, a research study will examine small public housing authorities to determine whether the circumstances in which they operate create unique funding needs, and to determine whether these have been met by HUD's current operating subsidy allocation system.

In the interim before the Performance Funding System evaluation and related work is completed, research necessary for its regular updating is continuing.

(3) Adequate maintenance of the public housing stock

A large-scale study has been undertaken to determine the costs of modernizing the public housing stock and providing energy conservation and accessibility by the handicapped. It will yield an estimate of the cost and scope of requisite activities in early 1980. Based on this research, minimum standards of quality applicable to the public housing inventory have been developed and will be reviewed by the Department shortly. Following the preparation of training materials for field office and housing authority personnel, the standards will be implemented in 1981.

One result of this work is an energy audit procedure designed for public housing. It will enable a Public Housing Agency to estimate the need for, as well as the feasibility of, applying energy conservation measures to its housing stock, and will be implemented in 1981. In addition, the public housing manual for accessibility by the handicapped will be evaluated by the Department in 1980 and disseminated in 1981.

Work begun this year on alternatives for meeting the physical improvement and maintenance requirements will continue into 1981. Research directed towards a revised modernization program is anticipated in 1981, including consideration of a requirement for comprehensive modernization planning and projections of funding requirements for future years.

HUD-Insured and Assisted Multifamily Research

In response to the increasing incidence of financial, managerial, and operational problems experienced by a significant number of HUD-insured and assisted multifamily developments, the Department has initiated a research program specifically to address the needs of the troubled-project inventory. Since 1975, projects have been undertaken to identify ways through which HUD's loan management and disposition programs can be strengthened and the causes underlying default and ultimate foreclosure can be reduced. The research seeks creative means for improving the Department's management of its mortgage portfolio, for resolving the fiscal and operational problems facing its distressed properties, and for disposing of defaulted properties in a manner which minimizes the impact on residents and surrounding neighborhoods.

Much of the existing work in this field will be nearing completion by 1981. Results of several research projects will be synthesized and made available for nationwide dissemination. For HUD-insured and assisted multifamily housing, 1981 efforts will summarize the research findings on comprehensive diagnostic and treatment programs for distressed properties and make them available for application nationwide.

A comprehensive plan for multifamily housing research is being developed in 1980, and will guide future work. Among the efforts currently underway in this area are two demonstrations to develop and test alternative methods for diagnosing and treating distressed federally-assisted multifamily projects. They are in the New York City and San Francisco areas. Both seek solutions which use: (a) interdisciplinary teams to conduct comprehensive financial and management audits of the distressed properties; (b) work-out plans or treatment programs to resolve financial and operational difficulties; and, (c) on-site technical assistance in the implementation of these treatments and programs. The application of these procedures has shown promising results. Financial relief, operating economies, improved property management, physical improvements, and better tenant-management relations have been produced in the demonstration projects. Demonstration products are now being utilized by the Department in its loan management program. They include the format and procedures for field staff to conduct the annual management review of multifamily projects, and auditing techniques for preparation of management improvement and operating plans ("MIO Plans"), required by the recently developed Troubled Projects (Flexible Subsidy) Program.

In New York, a Housing Resource Center has been established to test whether the comprehensive diagnostic and treatment, developed for individual projects, can be extended to the improvement or stabilization of the housing conditions in an entire area. The New York demonstration will also continue to assist the HUD area office in its administration of the Flexible Subsidy Program, through the use of audit procedures and work-out plans in distressed projects targeted for the program. This demonstration will also examine the rising incidence of physical and financial distress in nonsubsidized, Section 207, insured developments.

Research and Technology

The San Francisco demonstration has developed a number of workshops for HUD, State of California personnel, and owners and sponsors of subsidized housing. Subjects have included property taxes, accounting principles and use of financial information, and common problems confronting board members and owners of rental and cooperative multifamily projects. Currently, a national training program on preventive multifamily loan management is being developed for the loan services and property disposition staff.

A third research project underway in the Boston area is a demonstration of resident participation in the management and disposition of HUD-acquired multifamily developments. The objective of this demonstration is to develop nationwide procedures for carrying out the new property disposition requirements of the Housing and Community Development Amendments of 1978. For example, improved procedures and criteria are being developed and tested for the competitive procurement of skilled management and disposition teams. These teams will also perform housing management, resident training, and employment functions, while carrying out the disposition of the property.

Different forms of resident-controlled ownership for HUD-owned multifamily projects are being examined. Techniques developed under this demonstration include: (1) an improved property management procurement process; (2) standards for assessing proposals by management and disposition consultants, and for assessing purchase proposals; (3) procedures for tenant participation in the evaluation of competitive property management proposals; (4) a handbook preparing residents for participation in the evaluation of property management proposals; and, (5) a handbook for use by residents and property managers in evaluating options for resident control or ownership following disposition.

In 1979, a fourth research project was undertaken to design improved methods and systems for developing work-out agreements for the Department's portfolio of HUD-held properties (assigned and defaulted mortgages). A review of existing HUD-held mortgage servicing policies, procedures, data systems, and regulations has been completed. Based on this review, a systematic decision-making process is currently being designed for HUD loan servicers to use in analyzing and managing the HUD-held mortgage inventory. The new system will strengthen HUD's loan management programs by enabling HUD loan servicers to make proper and timely decisions. These will be based on an in-depth, physical and financial analysis of the project, an evaluation of site management and marketing potential, and determination of the consequences and cost to the government of alternative work-out decisions.

1.4 Assisted Housing Policy Research

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$284	$1,400	$1,000	$656

This budget category encompasses two major areas of activity: (1) basic research on assisted housing; and, (2) program analyses and implementation research. Most of this work will draw upon existing data sources. More specifically, the Department has collected over the past few years an extensive amount of data on housing units, housing markets, the behavior of lower-income and other families with regard to housing, the mobility of families with regard to housing, and the actions of landlords in the rental market. While these data have been used effectively to address issues within the framework of a specific program, such as Section 8 or EHAP, the value of these data sets often extends considerably beyond the original reasons the data were collected. Thus, one of the prime objectives is to ensure that the full potential of the investment made in these data is appropriately realized. In addition to the use by HUD, these data will also be made available to

universities and other institutions which study housing market behavior and policy making. Wherever possible, the results of studies utilizing these data will be applied to improving the operation of current department programs.

Two new projects aim to improve the implementation and administration of the Section 8 Housing Program. They draw upon EHAP as well as previous Section 8 results. Their subjects are housing quality inspections and income verification. In the area of housing quality inspections, a project was begun in 1980 to develop a training package which could be used by HUD field office personnel to train Section 8 housing inspectors to apply, accurately and consistently, the Housing Quality Standards of the Section 8 Existing Housing Program. The training program will be developed using expertise developed in similar work under EHAP and the earlier Section 8 evaluation. Actual training of PHA inspectors will begin in 1980.

In 1979, in response to the growing concern for fiscal integrity of income-based welfare programs, PD&R produced a report, based on EHAP data, which provided a dollar estimate of the savings which could be realized by the Section 8 Program through more careful determination of Section 8 applicant income. As a result, appropriate administrative changes were made in the program. In the course of this work, it was also found that welfare agencies in several State and Federal programs have developed their own techniques to improve the verification of recipient income, eligibility, and the amount of benefits. A project has been undertaken to examine these techniques in detail, for application of the most promising to the Department's housing programs. The work will be reported in 1980.

A number of more fundamental research projects have been initiated. One such project is concerned with the nature of housing markets, the production of housing services, the nature of the demand function for housing, and the determination of residential mobility. This research started in late 1979 and will continue through 1980 and 1981.

In order to support complementary work, (both basic and applied) by independent researchers, the Department is supporting a Housing Research Data Center, which will make PD&R generated data available to universities and others in the housing research community. This data sharing is expected to provide a much greater return from the investment made in HUD's data collection efforts, through results of analyses by other independent researchers that would not ordinarily be supported by HUD. First work on the project began in 1980, and the Data Center will become operational in 1981.

In 1981, a university research grant program will be implemented. This program will provide grants for faculty and graduate students to pursue basic and applied research on important housing issues. Because the newly created Data Center will provide information not available through any other source, it is expected that recipients of the university grant program will draw heavily upon the Center.

II. HOUSING SAFETY AND STANDARDS RESEARCH

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$3,994	$2,892	$2,650	$3,700

2.1 Residential Safety and Technology

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$1,933	$1,542	$1,400	$2,181

This category is, and has been, a continuing response to Section 502 of the Housing and Urban Development Act of 1970 which calls for the "employment of new and improved technologies, methods, and materials in housing construction, rehabilitation and maintenance--with a view to reducing costs--the acceptance and application of such advanced technology, methods, and material by all segments of the housing industry, communities, industries engaged in urban development activities, and the general public."

To carry out the objectives of Section 502 the Department explores the failures in existing practices, investigates the need for new technologies, or encourages the development of new building techniques (especially those for lowering costs), tests or demonstrates those new developments, and promotes the acceptance of techniques which prove most successful.

The construction and technical problems which surface in HUD's operating programs offer the greatest opportunity for fruitful research and development. Additional technical data is often vital for the approval by HUD of Structural Engineering Bulletins, Materials Releases, Use of Material Bulletins, and for revisions to the Minimum Property Standards. Research responses to these needs have included materials durability tests, computer studies on marginal cost versus the marginal value of added insulation, definition of hazards in the use of certain materials in home construction, and the development of methods for assuring that innovative material or systems are structurally sound and safe from fire.

The following programs for 1981 are dedicated to fulfilling those objectives.

(1) Performance Feedback

HUD has begun systematically to collect data from the Department's operating programs on significant, current building technology problems: a performance feedback system. Has the energy shortage caused significant changes in the design and construction of houses? Are new methods and materials being accepted in the marketplace? Is HUD studying the most important problems? Do HUD's standards really result in a good house for the money? These are the types of questions that HUD is trying to answer via the performance feedback system.

The collection methodology was designed to assure the information could be gathered without delay or modification to existing reporting systems. The information has been gathered from homeowner and tenant complaints, field investigations, and HUD's own property disposition process. It is now available to the operating program offices to help keep them abreast of design and/or construction trends, strengths and weaknesses. It will be further developed this year and prepared for transfer to automatic data processing. Computer trend analyses will

allow the prompt highlighting of priority problems, so that they may be addressed as early as possible.

All sectors of the housing industry need feedback on new, proven, cost-effective technology. The designer, builder, code official, building inspector, banker, etc., all need to be aware of new items of construction which provide better value. A system to provide this needed information is being introduced in 1980 in the form of Technical Notes. Each Note addresses one item of construction and is to be made available to all parties having an interest in the topic. A pilot dissemination effort in selected areas will seek economical means to obtain maximum distribution to those expressing an interest, with particular emphasis on housing finance professionals, building officials, and builders. Finally, in a related effort, HUD will begin to assess the reliability and effectiveness of existing HUD and industry standards. The first such assessment is of the standard for double-glazing of windows. Independent field checks will determine whether such windows actually perform in the manner called for by the standard. The assessment was begun in 1979; the results, for this and other assessments will be available in 1983.

(2) Improving Housing Design and Construction

Improvements in the design and construction of residential buildings is a slow and evolutionary process. Changes in the technology over the past 10 years are visible only to the trained eye. The use of more thermal insulation and a swing to heat pumps head the list of changes. On the other hand, subtle improvements have been made by the manufacturers of such items as prefab fire-places, windows, doors, floor coverings, and paints. The introduction of the ground-fault interrupter and plastic plumbing are the principal changes seen in wiring and plumbing. Otherwise these component systems have gone unchanged over the decade, although large technological gaps do remain.

Last year studies were initiated to bring these technology gaps to the attention of the industry and to encourage further development. Heading the list are two projects showing innovative and cost saving techniques which might be applied in the plumbing and wiring of houses. A catalog of information will be published on each subject showing the potential for simpler, less expensive material and methods which might be made available by the industry, if more exhaustive product research and development were undertaken.

Floor systems will be investigated in 1981. Traditional methods and materials have produced floor systems that have performed adequately. In flooring, many new systems have been and are being introduced. The question here is will the new materials perform adequately? On what basis should these materials be approved or disapproved? In 1981 HUD will begin a program to establish the appropriate level of performance of single-layer floor systems. Some important parameters are impact resistance, durability, serviceability, and resistance to fire and decay. This project will provide HUD with the tools required to judge impartially the performance of proposed new floor systems.

Inflation accompanied by tight mortgage money emphasizes the need for less expensive and more efficient houses. A national conference on house design and building technology will be sponsored by HUD to encourage greater consideration of such problems in the new decade of house construction for the 80's. This conference will be followed by another round of design competitions, initiated by HUD in 1980, along with a publication of house designs and systems dedicated to cost savings and greater value, through better use of building technology.

In 1980 HUD reported to Congress on the constraints to the construction of earth-sheltered housing. Included in the report were recommendations for overcoming those constraints through the provision of information to the housing industry and the public on earth sheltering. Such a program will be initiated in

1981 to supplement the Solar Energy Development Bank Act which will provide subsidies for below-market interest rate loans made to owners or builders of earth-sheltered houses. A manual on earth sheltering will be made available to the public during 1981.

Site problems will be addressed in several projects. Although there are many aspects to site problems, they all have two characteristics in common: namely, they are difficult to detect and are expensive to correct. The traditional engineering approach is not acceptable because the cost of housing is too high already. There is a need for cost-effective ways of identifying the problems, accompanied by inexpensive solutions to the problems. To this end site development cost studies were initiated in 1979. This work is being expanded to include cost-effective techniques for site development, the identification of the special problems and solutions for by-passed, difficult building sites, and research into expansive clay soils. In the development of the cost-effective techniques, the value-engineering methodology of satisfying the required function at the lowest overall cost without degradation of the quality will be used. Marginal sites that have been by-passed by developers possess many and varied problems. These sites may have been used as random fill areas for many years, or are the result of mining operations, or have unsuitable soils, or are swamp lands, etc., and may present extra expense in design and construction.

Tools will be developed to minimize the cost impact of the use of these otherwise acceptable sites. The expansive clay soil problem affects many regions of this country. The physical basis for the problem is not well understood, and therefore, some of the solutions that have been used address symptoms and not causes. The research program will look into the various techniques to assess the how and why some were successful and some were not.

(3) Demonstration of New Building Technology

In order to better apply the results of research, more full-scale demonstrations will be initiated throughout the country. The first one in 1981 will be a 25 house development jointly sponsored by HUD and the National Association of Home Builders (NAHB). It will be constructed in Las Vegas, Nevada, and will be completed for the NAHB national convention in January 1981. The project will demonstrate ways to lower the cost of site development as well as the cost of construction through technology and careful design. New standards for such items as streets, gutters, drives, walks, and parking will be stressed as well as new designs for smaller, more efficient houses intended to meet the growing needs of the nation's newly developed households. A manual of cost saving items will be published along with plans for all the houses in the subdivision.

Designing of the NASA/HUD technology demonstration house will begin in 1981. The gathering of technical information for the design was begun in 1980 in a joint program sponsored by the two agencies. Construction of the demonstration house on the Mall in Washington, D.C. using the most advanced technology known is scheduled for 1983.

In addition, a full-scale demonstration building will be constructed for public display in 1981, to show the results of the research in new plumbing systems, electrical distribution systems, flooring systems, and heating systems. This project will present the best of the systems brought to light in components research started in 1980.

(4) Maintenance and Rehabilitation

The amount of Federal housing funds expended in the United States for maintenance and rehabilitation is currently estimated at $1.6 billion per year, almost three times what had been expended as little as three years ago (1977).

Private sector expenditures for residential maintenance and rehabilitation are twenty to thirty times this figure. Despite the enormous sums currently being expended for maintenance and rehabilitation, the techniques, materials and products used were generally developed and intended for use in new construction.

This has had several adverse consequences. It is extremely costly, with few products or techniques designed specifically to meet the special problems of rehabilitation. "Gut" rehabilitation is far more prevalent than "moderate" rehabilitation. "Gut" rehabilitation essentially "guts" or removes all parts of the existing building down to the external shell and begins anew, using the better understood techniques of new construction. No consideration is given to how the existing materials and building assemblies could have been more cost effectively repaired, and reused. It is conspicuously resource-wasteful as well as costly, but in the absence of a developed technology for rehabilitation, "gut rehab" remains the preferred means for most firms in the field. New products that meet the special needs of existing buildings must be developed. An example is the security screen that provides adequate security in an aesthetic manner, but can be easily unlocked from within for safe fire exit.

There is also a need for different measurement and estimating techniques than are commonly used on new construction sites. Construction personnel need cost-effective, nondestructive evaluation (NDE) methods for assessing the safety, health, and serviceability of existing building components in residential properties. Maintenance and rehabilitation have other problems that are not encountered in new contruction. These problems also have potentially innovative solutions, such as the strengthening or repairing of structural members with epoxies and other chemicals suitable for insertion in such members.

The development of new techniques and products for the maintenance and rehabilitation markets is clearly a responsibility of the private sector, but it will be a difficult one, because the maintenance and rehabilitation markets are fragmented among thousands of extremely small (1 to 10 worker) firms. HUD will, through this effort, encourage the development of innovative products and materials that will meet the special needs of the maintenance and rehabilitation markets. Those special needs will be identified. Performance criteria will be developed (initially for selected areas, such as the security window that will meet security, fire egress and durability requirements). Evaluations and demonstrations will be sponsored for innovative products and techniques that meet the identified needs. And there will be large-scale dissemination of information to the maintenance and rehabilitation industry.

This effort was begun in 1980, through the identification of innovative systems for plumbing and wiring in old buildings, through the investigation of existing nondestructive evaluation methods, through the development of a new standard for bathtub refinishing, and through related efforts. In 1981 these efforts will expand to encourage the development of an industry that provides suitable products and services for maintenance and rehabilitation markets.

2.2 Lead Paint Hazards

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in thousands)		
$566	$400	$400	...

The work described in this section in previous years has now been included in subcategory 6.2, Environmental Studies under Budget Category VI, Community Development Research.

Research and Technology

2.3 Mobile Homes

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$618	$500	$400	$500

In 1974, Congress decreed that a single, pre-emptive, and mandatory building code be established for the Nation's $6 billion mobile home industry, and it prohibited the States and local communities from imposing differing construction requirements. The National Mobile Home Construction and Safety Standards Act (title VI), mandated that HUD have sole regulatory control over the development and enforcement of a new Federal Mobile Home Construction Safety Standard. It gave new emphasis to mobile home durability and quality, as well as safety, and it directed HUD to undertake systematic research before promulgating the mandatory standards.

To understand the impact of Title VI and the new responsibility placed upon HUD, one should remember that building codes have traditionally been, with minor exceptions, the province of States and local jurisdictions. There are now more than 9,000 varying building codes in the U.S., and more than 17,000 permit-issuing places. For the first time in America's history, a single, uniform building code is now being developed in a systematic, performance-oriented manner for part of the housing industry. The mobile home regulatory "experiment" offers a significant opportunity to accomplish many goals previously identified by Congress, namely: performance-oriented standards; realistic and uniform enforcement methods throughout the U.S.; life-cycle cost and benefit analysis; and, the introduction of new, innovative systems, materials and techniques without the penalty of a decades-long approval process.

Research has been the pathfinder in the development of the HUD mobile home standards. Since 1975, PD&R has created new techniques for judging safety, durability, and quality, principally achieved through full-scale systems testing. This process can evaluate all of the home's structural, electrical, plumbing, heating, and cooling systems for 20 or more years of simulated occupant use, and under a wide variety of climatic conditions. Similarly, full-scale fire testing and wind-resistance experiments have developed a new performance basis for regulating safety. A rigorous cost-benefit and risk-analysis methodology has been developed to test the true life-cycle cost impact to each interest group (manufacturer and consumer) for each proposed change to the Federal mobile home standards.

During 1981, three major research efforts are planned. The first will be to provide research support to the formal rule-making process for proposed changes resulting from recent research recommendations. During the rule-making process issues are usually raised by the mobile home industry and its suppliers. The Department expects to provide the "quick-response" research and documentation which may be needed by the regulatory office. For example, earlier data on questions such as long-term durability, fire-safety and wind-safety may need to be expanded to accommodate design changes occurring in mobile home technology as it moves into the eighties.

Second, the Department plans to complete the technical and economic research project (begun in 1980) relating to mobile home indoor air quality and the effects of urea formaldehyde (insulation) vapors upon the health of the occupants. The third effort will be to conclude the major energy conservation research projects which began in late 1979. These examine realistic alternatives in mobile home design and equipment, and evaluate the possible adverse effects of condensation upon the durability of the mobile home's structure.

2.4 Codes Administration

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$877	$450	$450	$1,019

(1) Building Codes

Building codes govern the design and construction of almost every new home and rehabilitation project in the country. They were originally developed to set standards for public health and safety, particularly to avoid the spread of fire among closely-spaced buildings. Over the years, however, codes have proliferated. When combined with other Federal, State, and local regulations, the proliferation of codes now burdens the building process with excessive, redundant, and conflicting requirements. This chaotic system causes delays and needlessly increases housing costs. One 1981 project will seek to reduce burdens in the building regulatory process by identifying costly code requirements which do not provide any comparable benefits. A second project will determine how the lack of a comprehensive, authoritative source for technical information may affect codes and housing costs. The same project will study code constraints to the use of manufactured housing. The objective of this research is to encourage simplification within and among codes, and in the processes by which they are administered, in order to reduce costs while maintaining adequate public protection.

(2) Rehabilitation Guidelines

Section 903 of the Housing and Community Development Amendments of 1978 directed HUD to " ...develop model rehabilitation guidelines for the voluntary adoption by States and communities to be used in conjunction with existing building codes by States and local officials in the inspection and approval of rehabilitated properties." Draft guidelines were to be published one year after the date of enactment and final guidelines six months after that. Although no funds were either authorized or appropriated for this particular purpose, HUD has diverted about one million dollars to fulfill this mandate (from funds that were planned for other projects in 1979 and 1980 under this line).

HUD identified over 50 different problems that existing building codes, largely based on new construction practices, impose on rehabilitation projects. With the help of a Policy Steering Committee drawn from the cities, industry, and consumer groups, the dozen most critical building code/rehabilitation problems were identified, and guidelines for overcoming these problems were then developed. These guidelines were published in the Federal Register, Part II (pages 63759 to 64058) on November 5, 1979 for public comment.

During 1980, HUD is revising the initial Rehabilitation Guidelines, based on public comment, and will publish final Guidelines in the Spring of 1980. HUD is initiating a dissemination and support effort for States and local governments to facilitate the use and implementation of these guidelines. It is also beginning the collection of information for the report to Congress, due 36 months after the date of enactment of Section 903.

The initial reaction to the draft Rehabilitation Guidelines has been very favorable. Over 1000 copies have been distributed. Communities such as Chicago, Baltimore, Denver, and Pittsburgh have indicated that these guidelines will be very helpful, as have the major Model Code organizations.

Research and Technology

During 1981, HUD will: (1) continue to aid State and local governments in the use and implementation of the guidelines; (2) report to Congress regarding actions taken by State and local governments to adopt the guidelines and make recommendations for further action; (3) develop and publish additional Guidelines for problems not responded to in the earlier Guidelines, due to time and money constraints; (4) conduct research on specific rehabilitation needs, such as assessment of fire safety in existing buildings; and, (5) develop a model hazard abatement standard, containing specific structural, fire safety and other tests needed by building inspectors to assess the safety of existing buildings or make demolition decisions in interest of the public safety.

III. Housing Economic Data and Analyses

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$12,367	$15,110	$14,570	$15,250

3.1 Surveys of Housing

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$9,971	$13,010	$12,607	$12,635

Housing and financial market data are indispensible in the formulation of housing and community development policy.

To meet the need for reliable and up-to-date information, PD&R developed and now monitors several major data series on national, regional, and local economic and housing market conditions. These series, developed and financed by HUD, include the Annual Housing Survey, Survey of Market Absorption of New Apartments, Survey of New One-Family Houses Sold and For Sale, Survey of Housing Completions, and the Survey of Mobile Home Placements. These data series are collected by the Bureau of the Census and issued jointly by the Bureau of the Census and HUD in monthly, quarterly, or annual housing and construction reports.

The data on the production and marketing of housing and on the status of the housing inventory are used by analysts in financial institutions, and in the construction industry, by the natural resources and materials manufacturing industries which supply the construction and remodeling industries, and by related industries such as home furnishings and utilities supplying residential energy needs. Other uses of the data include the preparation of the President's Annual Message on Housing Production, the President's National Urban Policy Report, and other reports to the Congress.

The largest project is the Annual Housing Survey, begun in 1973. It is a 1-in-1,000 sample of the total housing stock of the United States. It contains some 130 questions on a housing unit and its neighborhood. The subjects include the quality of the structure and its heating, plumbing and other systems, and thus provide heretofore unavailable detail on the housing conditions of American families and individuals. The survey also provides information on the deterioration and upgrading of units over time, on the present and former housing of families who have moved during the year, and on the quality and supply of vacant housing. The sample data are reported nationally, regionally, in and out of Standard Metropolitan Statistical Areas (SMSAs) and for rural and urban areas. In addition, within each of 60 SMSA housing markets, such data are reported quadrennially, one-fourth each year.

The Annual Housing Survey is used in the Annual Report of the President to Congress on National Housing Production and the National Housing Goal, required by Title XVI of the Housing and Urban Development Act of 1968, as amended. Congress requires that the Report update annually the estimates of housing need; these estimates are based on a large number of housing quality, socioeconomic, and other questions contained in the Survey. Congress also requires reports on progress made in conserving and upgrading housing and neighborhoods, expanding homeownership and equal housing opportunities, and assuring reasonable shelter costs. The annual measurement of these requires a wide battery of questions in the Survey.

Research and Technology

The Survey is used by HUD to support housing programs through analysis of market penetration and efficiency of the programs in meeting housing needs of various population sub-groups, in adjusting Fair Market Rents for the Section 8 Program, which help determine the amount of subsidy available under the program, and in other analyses and evaluation of housing programs and their operations.

The Survey is used by HUD, the Office of Management and Budget, the Congressional Budget Office, the Congressional Research Service, and other Federal and private agencies and groups making policy analyses and critiques of Federal housing programs and policies. The Bureau of Economic Analysis uses Annual Housing Survey data to adjust personal consumption expenditures in the national income accounts. The Departments of Transportation and Energy use data from the survey and from special supplements for their policy and program purposes.

3.2 Housing and Financial Market Studies

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$2,396	$2,100	$1,963	$2,615

The valuable data base provided by the Annual Housing Survey is used in many analyses designed to answer policy, program development, and market analysis issues. Among these are the socioeconomic characteristics of the markets for new and existing housing; projections of the potential needs for housing of various types and tenure through the end of this century; continued development of longitudinal data files to analyze changes in units over time; and, analysis of residential location, employment and income patterns in metropolitan areas to determine, for example, if intra-metropolitan migration of minorities results in improvement in income.

Other housing market research includes: an evaluation of HUD's role in Davis-Bacon wage rate determinations, to refine the data collection methodology and produce more accurate wage rate determinations; an analysis of the determinants and the timing of speculative land development decisions on the periphery of urban areas, to investigate whether decentralized development is inefficient; an analysis of the employment and migration decisions of recently laid-off workers to determine the potential impact on housing markets and the economic base of declining urban areas; and, an investigation of consumer attitudes about mobile homes and similar manufactured housing as an alternate, lower cost, housing choice.

Other research is analyzing the probable effects on decisions by developers and investors of potential changes in the tax laws for residential properties. Included are the effects on the volume and timing of investments as well as on the production and location of subsidized housing construction within metropolitan areas. The Department will also study the effectiveness of the accelerated five-year depreciation for housing rehabilitation expenditures.

Research on studies in the economics of housing and community development, and on mortgage and related financial markets complements the continuing data surveys and provides critical, issue-related information for use both within and outside the Department. Many of the issues studied are prompted by modifications to ongoing programs. Recent years have witnessed financial innovations and proposals on an unprecedented scale: Federally-sponsored mortgage credit agencies have been created - GNMA and FHLMC; existing agencies, such as FNMA and FHLBB, have changed many of their operations; new types of mortgages have been introduced and even more new types proposed; future markets and new types of investment securities have been established for mortgage investors; comprehensive reforms have been proposed for the portfolios of major lenders; and, new financing mechanisms have been designed for housing subsidy programs.

Research and Technology

Viewed against this background of change and innovation, the importance of policy research is evident. In the past year research efforts focused on a number of recent innovations. To mention a few:

-- As part of a larger study, a number of preliminary papers were completed on the Government National Mortgage Association's (GNMA) mortgage-backed security program.

-- A review was made of the impact of the GNMA securities on mortgage yields.

-- An analysis of the Federal National Mortgage Association's commitment process was completed.

-- Several papers on the relationship of anticipated inflation and the price and return to homeownership were done.

During the next fiscal year research on GNMA securities and inflation/homeownership will continue. In addition the Department will focus on the role of alternative mortgage instruments and trends in demand for FHA insurance.

IV. CONSUMER AND EQUAL OPPORTUNITY RESEARCH

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$5,633	$5,250	$3,195	$4,400

4.1 Fair Housing and Equal Opportunity

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$1,200	$900	$400	$550

PD&R, in cooperation with the Assistant Secretary for Fair Housing and Equal Opportunity (FH&EO), conducts research and demonstrations designed to promote compliance with fair housing and equal opportunity statutes. The 1980 and 1981 activities aim to strengthen enforcement of the fair housing laws. They are based on a comprehensive research agenda developed in 1979. This research agenda identifies and sets precedence for a set of research initiatives needed to help end the direct and indirect effects of discrimination and segregation. Efforts in this budget category are complemented by a substantial amount of related work described under Budget Categories VIII. "Program Evaluation," I."Housing Research", and V. "Community Conservation Research".

During this Administation, PD&R has concentrated its fair housing research and demonstration activities in three major areas: (a) demonstrations to improve the performance of State and local fair housing enforcement efforts; (b) research on discrimination in mortgage lending; and, (c) supplemental research in such areas as housing justice mechanisms and neighborhood racial change. Some of these projects will continue into 1980 and 1981.

(1) Fair Housing Demonstrations

Title VIII of the Civil Rights Act of 1968 gave HUD overall responsibility for coordinating the enforcement of fair housing laws, but HUD is also assisted by State and local fair housing agencies and private fair housing groups. PD&R has sponsored several demonstrations designed to improve the ability of these non-federal agencies to promote compliance with the law. Nearly completed is a demonstration of Improved Administration of State Agencies for Combating Discrimination, as is a demonstration to provide Innovative Techniques for use by Private Fair Housing Groups.

A current project is the Fair Housing Enforcement Demonstration. It is designed to increase the aid local fair housing groups provide Regional FH&EO offices in enforcing fair housing laws. Such aid is advantageous to HUD for two reasons. First, local groups can provide HUD with detailed information on local conditions from their own experience or by conducting fair housing tests. Second, they can supplement HUD's limited staff resources and enforcement powers by helping to process complaints and conduct fair housing studies. Cooperative Agreements have been signed with nine groups for a two-year effort ending in 1981. This demonstration also complements the Community Housing Resource Board Fair Housing Assistance Initiative conducted by the Assistant Secretary for FH&EO. An evaluation of the demonstration will begin in the Fall of 1981.

(2) Research on Lending Discrimination:

(a) Equal Credit Opportunity: Accessibility to Mortgage Funds by Women and by Blacks - In 1978 PD&R expanded its earlier work measuring discrimination by sales and rental agents to include discrimination by mortgage lenders. The project examined the treatment of actual homeseekers upon their submission of loan applications to mortgage lenders. The study used data from two states -- New York and California -- with recordkeeping requirements similar to those now being adopted by the Federal financial regulatory agencies. The data analysis procedures (as well as the results themselves) provided HUD and the financial agencies a wealth of information which can be used to improve the access to mortgage funds by women and by minorities. The project found that the existing civil rights legislation has yet to end discrimination.

(b) Pre-Screening of Applicants in Mortgage Lending - This project, to be jointly funded by the Ford Foundation, will assess the extent of discriminatory practices by mortgage lenders in the inquiry/application stage prior to the actual submission of written applications. It will use a modification of the audit procedure used in PD&R's Housing Market Practices Survey (HMPS).

(3) Other Fair Housing Related Research:

(a) Housing Justice Study - This study, conducted by the American Bar Association, has examined special court systems (housing courts) which deal exclusively with housing-related cases, such as tenant-landlord disputes and code enforcement. Case studies were conducted in 13 cities, including those with and those without these special judicial mechanisms. The final report will contain extensive descriptions of innovative means of handling these disputes. Other activities of the study include: (1) a statistical analysis of the frequency, disposition, and satisfaction level of participants in small claims, tenant-landlord cases; (2) brief examinations of a variety of nonjudicial, dispute-resolution mechanisms for handling housing cases; and, (3) planning awards to seven jurisdictions proposing to create comprehensive housing courts.

(b) FHA Insurance and Racial Transition - In response to a request by the Assistant Secretary for Fair Housing & Equal Opportunity this study analyzed credit underwriting standards for 400 FHA cases in several suburban Cleveland neighborhoods. A complaint had alleged these neighborhoods were undergoing racial change as a result of FHA activity. The study concluded that the Cleveland Area Office was adhering to consistent and nondiscriminatory underwriting procedures, both for individuals and neighborhoods. It supported the results of an earlier, independent FH&EO investigation. FH&EO has reviewed the procedures and methodology of PD&R's study and expects to use them as a model in investigating other fair housing complaints.

(c) Limitations on Rental Housing Opportunities for Households with Children - This is a two-part study. The first part is a national survey to measure the extent of no-children restrictions among dwelling units with various characteristics. The second part of the study will gather information in six cities about the victims of such practices. The information will be used to give a preliminary profile of who the vicitims are, what types of no-children policies are being encountered, how these policies affect the types of housing people choose, and the ways in which people located the unit they moved to. In one city, possible relationships will be investigated between the location of units which pursue these policies and other urban problems. This project is part of PD&R's families-research agenda.

(d) Housing Search - Little is known about the indirect effects of discrimination on the housing situation of minority groups and women. The patterns people follow in searching for housing are influenced by past experience, as well as expectations about conditions in various locations and submarkets. Segregation

may result because expectations of discriminatory behavior discourage prospective renters from even entering particular markets. This study will compare housing-search patterns of different groups, e.g., Blacks, Hispanics, families with children, etc., who experience difficulties in finding suitable rental accommodations. Interviews with renters will constitute the main source of data. An addition to the Annual Housing Survey is under consideration to provide large-scale information on selected issues. Data from previous studies (HMPS, Hispanic Audit, No-Children policies, etc.) will be incorporated.

This study will determine to what extent the anticipation of discrimination in particular submarkets influences search patterns, whether discrimination in these target submarkets is more or less frequent than usual, and how these factors affect the overall housing situation of the studied groups. Study results should enable HUD to inform disadvantaged groups about any self imposed limitations they may have set, specific submarkets problems, under-utilized opportunities, positive opportunities, and positive trends in the rental market.

4.2 Housing Needs of Special Users

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$2,457	$3,500	$2,145	$1,900

The Special Users Research Program seeks to develop improved methods for providing housing and housing-related services to people who have special requirements caused by such factors as age, physical condition, or cultural background. While the primary emphasis of the program is on the needs of the elderly and the handicapped, research is also sponsored on the needs of such diverse groups as Single Room Occupants, Indians and Alaskan Natives. In all cases, the research measures items such as providing special management, administrative, funding, legal, and regulatory responses to meet the needs of these groups.

In 1981, as in prior years, the research sponsored by this program will seek to identify impediments to independent living, to develop information about the nature of the housing and special service needs of these groups, and to design and implement better techniques for their delivery. In 1981, emphasis will be placed on: a longitudinal study of the housing adjustments of older people; an evaluation of a home maintenance demonstration in Baltimore; and, a multicity elderly home maintenance and repair demonstration funded in cooperation with a number of community-based foundations. Comprehensive research agendas are being developed for the elderly and handicapped programs from which additional work will be initiated.

Special emphasis in this research program has been placed on the housing needs of the elderly. Several recent publications reflect this concern, including: (a) "Low Rise Housing for Older People - Behavioral Criteria for Design," (winner of a Progressive Architecture award); (b) "Occasional Papers in Housing and Community Affairs-Volume I: the Housing of Independent Elderly"; (c) "Volume III - Housing Options for the Elderly"; and, (d)"How Well Are We Housed? 4. The Elderly." Currently, a companion to the "Low Rise" book, which will concentrate on mid-rise elevator buildings, is being prepared.

Preliminary work began in 1979 on the shaping of a research agenda for the problems of the elderly. The Gerontological Society, using an advisory group of well-known gerontologists, will complete suggestions for this agenda in 1980. Implementation will begin in 1981. The agenda will consider the needs of all elderly persons with housing problems. It is unlike previous work, which concentrated only on those already or in need of occupying specialized elderly housing.

Several of the projects initiated in 1979 will continue. One is a longitudinal study of the housing adjustments which people make in response to key age-related changes (such as loss of occupation and income, deterioration in health, and widowhood). Such information will be extremely valuable in designing programs which are more responsive to the different phases of elderly life. The survey instrument for this study was developed and pretested during 1979. In 1980, the data-gathering for the first of ten years of collection is planned.

Another continuing project, begun in 1979, is an evaluation of the home maintenance program in Baltimore. Data has been collected from program participants and control groups in Baltimore. Preliminary analysis will begin during 1980. In 1981, a second round of data collection will be undertaken to allow the analysis of the effects that such a program has on the housing and neighborhood condition, as well as on its direct recipients.

The Baltimore home maintenance pilot program has provided a sound basis for planning a broader-scale, multicity demonstration and evaluation. The demonstrations will take place in six to ten communities. They will permit a careful assessment of the administrative feasibility and costs of such programs, and if feasible, will provide a mode for a nation-wide program. The project is unique, because it will be jointly sponsored by HUD and a number of local, community-based foundations. The design was finalized in 1979. Actual delivery of repair services is planned to begin in the Summer of 1980. The demonstration will be conducted over a two year period, ending in 1982. An independent evaluation of the program will also be undertaken.

Additional testing will continue in 1980 of model training programs for potential sponsors of the Section 202 loan program for elderly and handicapped. The purpose of these training materials is to increase minority participation in the Section 202 program. The demonstration will help develop an institutional network which can provide training and technical assistance on an ongoing basis, without Federal support.

A major section of the Special Users program is devoted to the problems of housing the handicapped. The major accomplishement of this program has been the development of a new national standard on accessibility for the handicapped. It has been accepted by the American National Standards Institute (ANSI) as an ANSI Standard. Although ANSI standards are voluntary, they often gain the force of law by being referenced or included in State or local codes and Federal regulations.

Two related efforts will continue during 1980. Construction has begun on several demonstration units, which are being built to the ANSI standards so HUD can identify the true costs of accessibility. The units will also be shown to the public, and their market acceptability will be evaluated.

HUD and Department of Health and Human Services are jointly funding a demonstration of housing for the severely mentally ill. The two Departments are also jointly supporting an evaluation of the project, which will continue into 1980, after the units are occupied. The Department of Health and Human Services will evaluate the costs and benefits of such specialized, service-intensive housing in actual operation to obtain a better comparison with existing alternatives.

Finally, a major study of the costs of modernizing public housing for accessibility, energy conservation, and general modernization (described in more detail in Section 1.3, Management of Assisted Housing) will be completed in 1980. This project will result in an estimate of the costs of making public housing accessible to the handicapped (as required by Section 504 of the Rehabilitation Act of 1973), and in the publication of a manual which will assist local housing authorities achieve accessibility in their projects.

Research and Technology

New research efforts in 1980 and 1981, drawn from the new research agenda, cover matters such as: adapting current programs to assure accessibility to the handicapped; developing incentives for the private sector of the housing industry to provide housing and services to the handicapped; and, developing accurate estimates of the needs for specialized housing at various levels of income.

The Special Users research program also responds to other groups with special housing needs, and HUD will continue to provide research support for these groups in 1981. For example, work has recently been completed on a project for special requirements on Indian reservations. The study looked at the needs of five Southwestern tribes for special housing for the elderly, the handicapped, and neglected or abandoned children. It developed solutions for those needs, and resulted in the preparation of proposals for the construction of special units from a set-aside of Indian Public Housing funds. Each of the tribes has proceeded with several such units, and they are currently in early development.

Another special concern has been housing for Single Room Occupants (SRO). Work will continue in 1980 on a project which measures the need for such housing, the current provisions for it, and the role which HUD should play in its provision.

4.3 Housing Counseling and Consumer Aids

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$1,976	$850	$650	$600

RESPA Studies

Consumer concern with high settlement costs led to the enactment of the Real Estate Settlement and Procedures Act (RESPA) of 1974. The cornerstone of the Act is a requirement that lenders provide buyers with advanced notification of settlement (or closing) costs to permit comparison shopping and encourage greater competition among those providing settlement services.

Sections 13 and 14 of this Act, on the other hand, represent an attempt to deal with some of the other causes of underlying high settlement costs. Specifically, Section 13 calls for a demonstration of one or more model systems for the recordation of land title information. These are to be designed to facilitate and simplify land transfers and reduce their costs. Section 14 requires HUD to analyze several far-reaching alternatives to the advance-disclosure provisions of RESPA, including a lender-pay concept and direct regulation of settlement costs.

In the first phase of the Section 13 work, reports have been prepared on the following subjects: a state-of-the art analysis of innovative title recording procedures; a description of a model registration (Torrens) system; an analysis of various means of eliminating repetitive title researches; and, a legal examination of State and local laws which inhibit or facilitate the recording and examining of title information. These reports will be available in 1980. In addition, HUD has made demonstration grants to seven State and local jurisdictions to operate model title recordation systems. Four jurisdictions received grants to set up and operate more efficient recordation systems, involving the use of parcel indexes, computerized storage retrieval of information, and other innovations: Warren County (Ohio), Pinal County (Arizona), the City of St. Louis, and the State of North Carolina. Three jurisdictions receive grants to operate registration (Torrens) systems in which local jurisdictions themselves compile all title information and assure title condition: Southern Middlesex Registry (Massachusetts), Summit County (Colorado), and Hennepin County (Minnesota).

Research and Technology

In early 1979, HUD began the Section 14 research. It includes an examination of the advance-disclosure procedures and their effects on consumer awareness and shopping, as well as an analysis of such alternatives as direct regulation and lender-pay. The latter involves the payment of all settlement costs by lenders, who because of the volume of their settlement transactions, presumably could exercise greater leverage than consumers in acquiring settlement services at a lower cost. Research results will be based on data drawn from 20,000 HUD Forms (Settlement Statements) and from several thousand interviews with homebuyers, sellers, lenders, attorneys, real estate brokers, title insurers and others.

Findings from the Section 13 and 14 research efforts will be incorporated in a report to Congress in 1980, along with recommendations for further Federal action, if necessary, to deal with problems in settlement costs and practices.

4.4 Rural Research

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
...	...	...	$1,350

This new line item contains work that previously was part of Section 4.2, Special User Research. Because of the importance of issues concerning rural areas, this research is now presented as a separate budget item.

Since 1978, HUD has worked closely with the Farmers Home Administration (FmHA) and the Housing Assistance Council (HAC), toward the development of a rural research agenda. Through this coordinated effort, in which numerous rural needs and problems were considered, there has emerged agreement that the delivery of housing and related services to rural areas is a primary issue. More specifically, rural areas often fail to receive the benefits of Federal housing and other Federal programs, because public agencies, technical expertise, development capacity, etc., are either very limited or do not exist. These conclusions were supported by HUD's Task Force on Rural and Nonmetropolitan Areas. Thus, the principal focus of this research area is on improving the delivery of housing and related services to rural areas. Within this framework some activities have been accomplished, and others are scheduled through 1981. These are:

HUD/USDA Rural Housing and Community Development Demonstration

The first two-year phase of this joint venture between FmHA, and HUD's Offices of CPD and PD&R is being completed in 1980. Conducted in four States (California, Colorado, Illinois and West Virginia), the primary purpose was to encourage greater involvement by the States in the delivery of housing and community development services to "hard-to-reach" rural areas. When all activities begun under Phase I are completed, it is estimated that 20,000 rural families will have been aided through construction of new housing, substantial rehabilitation of housing, rental housing assistance, additional sewer and water facilities, and other programs. FmHA provided $41 million in program loans and other funds, and CPD supported the demonstration with $2.5 million of Community Development funds. PD&R funds ($500 thousand)--this amount is shown under subcategory 4.2--was used by the States to initiate the demonstration and to support a modest assessment of the Phase I activities. FmHA and HUD's Offices of CPD and Housing plan to expand the demonstration in a Phase Two effort. Because the new activity will be at an operational level, additional PD&R research funding is not needed.

HUD's Rural Assistance Initiative (RAI)

The RAI, initiated in 1979, is being conducted in the States of North Carolina

and Washington. It is a cooperative demonstration between local HUD offices and several small cities, counties, State agencies, and local public and private institutions to identify how Departmental programs and staff can be more effectively matched to the special needs of rural areas. Examples of promising techniques being tried include:

Delegated Processing -- Local mortgage lenders are authorized to initiate most of the steps involved in processing HUD insured loans.

Rural 1000 Program -- Allows new flexibility and simpler processing in developing Section 8 New Construction units in communities with populations of less than 1000.

Rural Homes Programs -- A cooperative venture in which associations of home builders and lumber and material dealers are promoting the construction of Section 235 units in rural areas on a Statewide basis.

Rural Track Processing -- One large developer familiar with HUD programs works with smaller local builders at several rural or small-city sites. Completion of this initiative is planned for 1981.

National Rural Center (NRC)

In 1980, HUD and nine other Federal agencies funded NRC, a clearinghouse for all types of rural development information. The NRC project is designed to provide rural information services to all interested Federal, State and local agencies and to the rural client groups they serve. HUD plans to continue support of NRC in 1981.

Rural Cooperative Housing Demonstration

HUD in 1980 joined FmHA in initiating a multiyear demonstration of housing cooperatives for small groups of low-income rural families. While housing cooperatives have been successful in urban settings, they are virtually nonexistent in rural areas. Based on research about small housing cooperatives in other countries, it is believed that if Technical Service Organizations (TSOs) are introduced into the system, small rural cooperatives will become feasible. A TSO provides services to several small cooperatives during their formative and operational stages. In this way small cooperatives are able to realize economies of scale by combining their resources.

It is anticipated that TSOs will be developed in at least three rural areas and that each will establish a number of housing cooperatives. It is planned that several co-ops will be in place by 1981. An assessment of the formative and early operative experience should be available in 1982.

Housing Assistance Council (HAC)

PD&R will continue to work with HAC and their funding from PD&R will be increased in 1981 to $1,050,000. This is $325,000 more than the 1978 support level, and $190,000 above 1979.

V. COMMUNITY CONSERVATION RESEARCH

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$11,362	$3,050	$3,205	$3,325

The Community Conservation Research program has responsibility for research to strengthen residential environments. The neighborhood preservation component seeks to improve our understanding of neighborhood change and to analyze neighborhood preservation programs; key study areas include neighborhood revitalizations, displacement, and housing abandonment. The housing maintenance and rehabilitation component deals with activities to preserve and improve the quality of the older housing stock. The neighborhood organization component examines and supports the role of local organizations in the revitalization process. The residential security program studies and tests programs to reduce crime and crime-related problems in public housing projects and other residential neighborhoods. Finally, the community design program is concerned with the effects of the physical environment on the quality and stability of residential areas.

(1) Neighborhood Preservation

This program assists in the formulation of public policies and programs to reverse neighborhood decline and encourage revitalization. Studies of revitalization utilize data sources and methods drawn from program evaluations. All of our program-oriented research, in addition to assessing program effectiveness, provides basic information about how neighborhoods work.

Urban Homesteading Program Evaluation. The Urban Homesteading Program, begun as a PD&R demonstration in 1975, was elevated to operating status during 1977. The program has been received with enthusiasm in local communities. Concurrent with the initiation of the program, an independent multiyear evaluation was begun. That evaluation will be completed in 1980, and during 1981 extensive dissemination of its findings is planned.

In 1980 the Third Annual Report on the evaluation was submitted to Congress. The report documented the activities in the original 23 cities, and based on the experience gained over the past four years, included recommendations for operating local homesteading programs. The final report will present an overall cost-benefit analysis, as well as several recommendations for future management of homesteading. The evaluation data file is one of the most extensive and sophisticated ever developed for neighborhood analysis. It is expected to be of great interest to independent researchers, and it will be made available for extended secondary analysis.

Urban Reinvestment Task Force/Neighborhood Housing Services Evaluation. PD&R's evaluation of the Urban Reinvestment Task Force and the Neighborhood Housing Services (NHS) program examines the strengths and weaknesses of the NHS approach to preserving single-family residential neighborhoods which are experiencing early decline. This information will permit HUD to compare the effectiveness of this intervention strategy with that of other strategies such as Urban Homesteading and local CDBG initiatives.

The evaluation, which began in 1977, is focusing on such issues as how the Task Force was organized to carry out its mission, operating costs, and NHS implementation strategies. A major part of the evaluation is to assess the NHS program's neighborhood impact, including socio-economic changes in the target areas, effects of NHS activities on housing conditions and property values, and the effectiveness

of NHS in leveraging private mortgage and home improvement capital. Evaluation reports will be published during 1980, with the final report due early in 1981.

Multifamily Sweat Equity Evaluation. In contrast to the Urban Homesteading and NHS programs, the Multifamily Sweat Equity Program focuses on neighborhoods with multifamily housing problems. In 1977 HUD awarded a grant to the Urban Homesteading Assistance Board (UHAB) in New York City to support a demonstration in which landlord-abandoned multifamily housing would be rehabilitated through tenant's sweat equity and become tenant-owned cooperatives. Additional project resources include HUD's Section 312 rehabilitation loans and a portion of the city's Comprehensive Employment and Training Act funds. This demonstration provided the basis for expansion to a multicity project in 1979.

An in-house evaluation of the New York City demonstration is expected to be completed during 1981. The evaluation results, together with information from other studies on housing abandonment and local property disposition, will yield program recommendations on property reuse, multifamily housing rehabilitation, and alternative ownership forms. These activities will extend through 1981.

Neighborhood Strategy Areas (NSA) Evaluation. The NSA demonstration program helps local communities solve multifamily housing problems, when they undertake neighborhood preservation activities. It is administered by the Assistant Secretary for Housing, and it provides a set-aside of Section 8 Substantial Rehabilitation funds to selected cities and counties in the Community Development Block Grant (CDBG) program. These cities must develop comprehensive revitalization programs and accept certain relocation aid requirements in order to participate. The objective of the NSA demonstration, which began in late 1978, is to strengthen cities' ability to bring about neighborhood revitalization by improving their ability to accomplish multifamily rehabilitation. The relocation assistance requirements are designed to minimize the displacement of lower income families.

PD&R is undertaking an evaluation of this five-year program to examine: how cities carry out the program; how well they are able to avoid displacement or, where necessary, assist families to relocate; to what degree the program improves working relations among the city and other entities which shape the local investment environment; how well cities are able to generate and package Section 8 proposals and coordinate them with their CDBG activities; and, whether the cities' role in Section 8 relocation requirements should be extended to the non-NSA Section 8 Program. This evaluation began in 1979 with the collection of initial neighborhood-condition data from a sample of 48 NSA neighborhoods.

Reuse of Abandoned Property. A manual of "Municipal Reuse and Management of Surplus Real Property" will be completed during 1980. The manual will examine strategies and procedures for ameliorating the effects of housing abandonment. It will provide practical information for local officials including: (1) methods of inventorying abandoned properties; (2) strategies for the acquisition and interim management of abandoned structures; (3) procedures for establishing reuse priorities and disposing of surplus property; (4) relationships between reuse programs and general land use planning; and, (5) a catalog of local, State and Federal programs relevant to reuse programs. During 1980 and 1981 PD&R will develop and implement a dissemination plan to bring the material to the attention of local officials.

Measuring Neighborhood Change Using the 1980 Census. Beginning in 1981, when the first tapes become available, PD&R will analyze the 1980 Census results to identify and measure changes experienced by neighborhoods between 1970 and 1980. The data-base generated by the Census provides an opportunity to advance significantly the understanding of the dynamics of neighborhood change and to measure the impact of existing, local, neighborhood-preservation programs. The cost of data collection ordinarily severely limits the extent of neighborhood analysis that can be attempted. However, tract and neighborhood level data from

the Census will make possible extensive and intensive analysis, at relatively small cost.

Displacement Research. Prior work to be completed during 1980 includes: a six-city analysis of revitalization and displacement; a detailed neighborhood case study of displacement; an analysis of revitalization in Washington, D.C.; and, an analysis of legal issues in displacement. Together, these studies provide a comprehensive picture of how displacement occurs, its relation to revitalization, who is displaced, and how they are affected.

The six-city study documents the characteristics of private market revitalization and displacement in 12 neighborhoods and it develops a system for recognizing these phenomena once market forces have set them in motion. The study analyzes these processes in a variety of city and neighborhood types in order to provide a broad basis for understanding the phenomena and recommending appropriate intervention. The neighborhood displacement case study emphasizes the identification and location of outmovers to determine their post-move housing and neighborhood conditions, and the circumstances surrounding their moves.

The analysis of neighborhood revitalization in Washington, D.C. uses a computerized local data system to trace the city-wide progress of revitalization since 1970. The research project on the legal issues of "gentrification/displacement" is underway to assess the relevant laws, regulations, public policies, and programs.

Finally, data from the Panel Study of Income Dynamics (PSID) are being used to measure the extent of displacement nationally and to profile displaced households over time. The PSID is a national longitudinal study begun in 1968 by the Survey Research Center at the University of Michigan.

Housing Abandonment. During 1980 and 1981 PD&R will undertake two projects to study the causes and effects of central-city housing abandonment and to suggest possible solutions to the problem. The first will develop a conceptual model for the analysis of housing abandonment. The model will examine abandonment within the larger metropolitan context and will relate abandonment to neighborhood change. The project will identify those causes amenable to programmatic intervention and will discuss policy options available to local, State and Federal officials.

The second project will evaluate the Alternative Management program currently underway by New York City. Under this experimental program, city-owned, tax-defaulted, residential buildings are leased to community or tenant organizations, private management firms, or quasi-public bodies. The program is partially supported by the city's CDBG funds. The program objectives are to rehabilitate the properties, to assure they return to the private sector, and to establish a cash flow that will avoid their reversion to the city. This study will extend the work conducted in the preparation of the building reuse manual (discussed earlier), by evaluating a local operating program trying to deal with the problem.

Co-ops for Neighborhoods Demonstration. In August 1978, PD&R implemented a new demonstration pursuant to Section 305(b) of the Housing and Community Development Amendments of 1978. The amendment added Section 510 to Title V of the Housing and Urban Development Act of 1970, and authorized the Secretary to test the feasibility of converting urban multifamily properties into cooperatives, condominiums, or alternative forms of tenure. The intent of the amendment was to provide an additional tool for neighborhood preservation, by permitting tenants to acquire a sense of ownership and thus a stake in the neighborhood.

The "Co-ops for Neighborhoods" Demonstration has been successful in leveraging city funds, private investor funds, and financial institutional

interest in rehabilitating and converting distressed multifamily buildings into cooperative units.

In September 1979, three New York City neighborhoods were selected, one each in Brooklyn, Manhattan, and the Bronx. The demonstration in New York City is a joint initiative by the New York City Department of Housing Preservation and Development and HUD. In each case, a private developer and a local community group jointly share in the management, rehabilitation, and conversion of the city-owned buildings for low-income families. The Manhattan site is in the path of private market revitalization, and it will provide a test of such tenant-co-op conversions as a counter-displacement tool. The demonstrations are funded from various sources. HUD's funds will cover demonstration staffing requirements, management and ownership training to the residents who become cooperators, and the legal fees for conversion. The City of New York is making part of its CDBG funds available for those buildings requiring moderate rehabilitation, and for management until the units become cooperatively owned by the tenants. Private developers have been given priority access to Section 8 Substantial Rehab contracts for the buildings requiring it. In turn they will contribute 5% of mortgage value from tax-shelter syndication proceeds, to provide a replacement reserve, or equivalent, for the cooperative units. Financial institutions have expressed interest in providing "piggyback financing" for additional rehabilitation (beyond the capacity of the CDBG funds), where the nature and distress of the buildings mandate such treatment.

An independent assessment contract has recently been awarded to examine the impact and effectiveness of the demonstration model, and to help determine whether the demonstration should be extended to other cities having similar, but not identical problems. The demonstration will be concluded at the end of 30 months, in June 1982. Six major assessment reports will be prepared during the 30-month period, three of which will be presented before the end of 1981, and three at the conclusion of the demonstration period. If the initial evaluation supports it, expansion into at least two other cities is expected to be implemented in 1981, by which time some measure of success in New York City should be known.

(2) Housing Maintenance and Rehabilitation

Research in this field seeks to understand the problems and constraints faced in the rehabilitation of existing housing. It also investigates the role the public sector might play in stimulating the maintenance and renovation of housing in older urban and suburban neighborhoods. It supplements the rehab-technology work, discussed under 2.1 and 2.4, and the public housing maintenance research, under 1.3. The four studies underway in 1980 and 1981 cover a range of related topics.

One is to develop and test methods to measure the condition and rehabilitation needs of the Nation's housing stock. This project began in the Summer of 1979 and is being carried out under two separate but coordinated efforts by HUD and the Canada Mortgage and Housing Corporation (CMHC), pursuant to a bilateral memorandum of understanding. The objective is to improve the utility of the Annual Housing Survey (AHS) (and its Canadian equivalent) in providing national estimates of the extent of substandard housing and the cost to rehabilitate it. These estimates will will assist in making decisions on allocating housing program funds and designing programs. The immediate purpose is to test the feasibility and usefulness of augmenting the AHS questionnaire with further housing-condition questions.

A second project is a guidebook to provide basic information for local officials attempting to design local housing-rehabilitation programs. This guidebook is to be based upon the accumulated expertise of practicing local rehabilitation officials, plus in-depth analyses of six case study programs. Among the key issues to be discussed are goal setting, budgeting, financial assistance alternatives (including leveraging private funds/non-financial assistance), program marketing, contractor monitoring, fund disbursement, and staffing. It will be published during 1980.

A third study concerns the Section 312 Rehabilitation Loan Program, one of the key Federal housing rehabilitation programs. Its purpose is to encourage property rehabilitation through the provision of low-interest loans to owners of single-family and multifamily housing, and nonresidential properties. The program has been expanded considerably during the last few years, particularly its multifamily loans. In 1980 PD&R will begin an impact evaluation of the multifamily component of the Section 312 rehabilitation loan program. This evaluation will focus on four groups of people who are affected by the program: loan recipients, residents of rehabilitated structures, residents of the surrounding neighborhood, and local program officials. Among the issues to be examined are: the kinds of investors who participate in the program; the types of families; the ways in which the program affects the surrounding neighborhood; the impacts of local administrative procedures; and, the costs of rehabilitation.

The fourth study, which is currently underway, is using the National Bureau of Economic Research (NBER) urban simulation model to simulate the impacts of housing rehabilitation in the Chicago SMSA. This study will simulate a number of alternative rehabilitation programs and estimate the impact on families and neighborhoods. The study will complement and extend similar work completed for HUD in which the Urban Institute's Housing Market Simulation Model provided estimates of the market effects of rehabilitation. If such simulations prove accurate, they may provide a better basis for the allocation of program funds.

(3) Role of Neighborhood Organizations

During 1980 and 1981 PD&R will continue its examination of the role of neighborhood organizations in the neighborhood revitalization process. Several research projects will investigate the current involvement of neighborhood organizations in community conservation activities and evaluate ways in which their involvement, and the neighborhood revitalization process in general, can be strengthened.

In 1978 PD&R initiated a research program to assist the objectives of the Assistant Secretary for Neighborhoods, Voluntary Associations and Consumer Protection (NVACP). The program seeks new means to strengthen the capacity of neighborhood organizations to develop and carry out neighborhood revitalization activities. Projects currently underway include the preparation of guidebooks for community groups on a variety of neighborhood development activities, the development of a methodology for locating and assessing the needs of small neighborhood organizations, and the creation of a centralized information-sharing exchange for neighborhood groups. These projects will continue during 1980, and, where promising results are obtained, will be extended into related areas in 1981.

Two projects initiated in 1979 test the effectiveness of providing different forms of assistance to neighborhood organizations through an intermediary. Under the first, workshops for community groups will be held in ten cities to inform them of strategies by which they can can induce reinvestment in their neighborhoods. The workshops provide case study materials about the process through which neighborhood groups receive assistance, how they use that assistance, and the value of this approach to neighborhood revitalization.

The second project supports issue-oriented research conducted by neighborhood organizations. Several neighborhood organizations will receive small grants to study issues that have an immediate impact on them. The project is designed to: (1) provide a measure of the research concerns of neighborhood groups; (2) test the capacity of local neighborhood groups to conduct competent research related to their needs; and, (3) to evaluate whether broader use of such capacity would aid national as well as local needs. Both projects will extend through 1980 and into 1981.

During 1980 and 1981 an evaluation of the Neighborhood Self-Help Development program will be conducted. Under this new NVACP program, neighborhood development organizations will receive grants to carry out a variety of self-help, neighborhood revitalization projects. The evaluation will: (1) assess the success and failures of the particular projects; (2) identify characteristics of neighborhood organizations which contribute to successful completion of a project; (3) evaluate whether the grants build continuing capabilities (beyond the specific projects) in the neighborhood organizations; and, (4) evaluate the impact of such Self-Help projects in contrast to other means to foster community conservation. The evaluation will begin during 1980 and will continue through 1981.

(4) Security

The security research program develops and facilitates implementation of practical methods and programs for reducing crime and its consequences in housing developments and surrounding neighborhoods. Particular emphasis is given to the assessment of anti-crime innovations and to the development and dissemination of manuals explaining how innovations judged to be effective can be replicated by local housing officials.

Anti-crime Evaluation. Evaluation of a part of the Urban Initiative Program was legislatively mandated by the Public Housing Security Demonstration Act of 1978. Thirty-nine public housing sites are participating in the demonstration. Each site's anti-crime program includes strategies that address the responsiblities of the Public Housing Agency (PHA), programs by and for tenants, and local government and private sector responsibilities. The evaluation includes an assessment of crime and victimization rates, residents' fear of crime, and resident behavior and attitudes in response to crime and fear of crime, in a subset of the participating sites. Pre- and post-intervention measurements are being taken. Similar surveys are being conductd at "best-fit", comparison (quasi-control) projects, and in the residential areas surrounding each measured site.

Security and Planning Manuals. In 1980, PD&R is completing a series of manuals that describe, among other things, how site elements such as structures, trees, walls, fences, and lighting can most effectively be used to help provide a secure and attractive environment for residents of public housing projects. The manuals also present a methodology for assessing and planning security-related social elements such as resident social relations, management services, and social services. Survey instruments for assessing tenant crime-related experience and concerns is part of this package of security-oriented materials. These surveys aid the planners to target resources to the most vulnerable parts of the project. In addition, a 1980 workshop is being presented to facilitate PHAs' use of these products, and to communicate with PHAs about security issues in general. Exploration of further ways to aid the thousands of PHAs across the country to use these materials will continue to be an important objective during 1981.

Elderly Victimization. In 1980 the distribution of another series of anti-crime manuals is being completed. These manuals address anti-crime programs for the elderly: "Combining Community Crime Prevention and Victim Services," "A Guide to Planning," and "A Guide to Program Activities." Developed from the experience of a six-city demonstration to reduce the criminal victimization of the elderly, these manuals give effective "how-to" assistance to those attempting to aid urban elderly crime victims.

Community Anti-crime. A major concern of most community anti-crime programs, including the Department's Urban Initiatives Anti-crime Program, is to develop strategies that help people feel secure when they are outside their own residences. Yet, one conclusion of recent research is that routine activities which draw people away from households and families increase the opportunities for them to be victimized. Current PD&R anti-crime research provides a foundation for addressing this potential conflict.

Recent PD&R activities have reinforced the importance of neighborhood vitality as a crime-prevention strategy in and of itself. Clarification of the linkages between neighborhood revitalization and neighborhood security is a research focus of 1981. The primary goal will be discovering and implementing strategies that work.

(5) Community Design Research Program

The physical environment exerts an important influence on the social structure of a community and its future viability. The community design research program studies the planning, design, and management of this neighborhood living environment. This requires the identification of personal and community needs, the correlation of these needs with specific physical forms, and the examination and selection of appropriate designs to meet those needs. An important earlier example of this process is Newman's work on "Defensible Space," which received its initial support from PD&R.

The major effort in 1980 is a review of program progress to date and the development of a comprehensive agenda for future research. This includes an evaluation of the past focus of the program and an exploration of alternative areas of work. No major research projects are being initiated during this review period.

A study to improve the administration of urban environmental design by local governments is continuing in 1980. Technical and administrative guidance will be developed and disseminated. The study is based on the transferable techniques for planning and managing local programs which encourage superior urban environmental design.

VI. COMMUNITY DEVELOPMENT RESEARCH

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$5,166	$6,435	$7,058	$6,740

6.1 State and Local Policy Analysis

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$2,912	$3,820	$4,548	$4,115

There has been a continued trend toward increased State and local government discretion in allocating HUD housing and community development assistance. This has led to a need for greater management and policy analysis skills in local government. These were not generally attained under our earlier narrowly-delineated categorical programs. The need has become more urgent for several reasons: the high inflation rate has continued to erode local ability to maintain service levels; citizen dissatisfaction with increasing tax rates is growing, as evidenced by the number of tax-limitation/rollback measures being sponsored across the country; and, at the same time, many citizens are looking to government for new or improved services.

In light of these trends HUD is seriously concerned that limited Federal funds be used in the most efficient and effective manner possible. This objective can be best achieved by improving and strengthening general, local government management and organization methods and by helping improve the delivery of services. HUD's local government capacity sharing program is designed to contribute to this end.

(1) Financial Management

Based on an extensive needs assessment in 1978, HUD initiated and developed a local government financial management capacity sharing program, concentrating on three high priority areas: (a) forecasting revenues and expenditures; (b) integrating budgeting, accounting, auditing, and performance measurement; and, (c) removing State and Federal barriers to good financial management practices.

1979 and 1980 were years for building and development of these activities. A Financial Management Resource Center was established to help local officials and others to keep abreast of current financial management publications, to answer inquiries, to provide for workshop facilitators, and to provide for expert review and advice on financial management questions where no consensus exists on "best" practice.

National searches were conducted to identify and assess exemplary financial management practices for smaller and for larger local governments. Practices surviving rigorous peer-screening are being disseminated to local government officials through publications, regional conferences, and workshops for smaller and for larger jurisdictions.

Five intrastate or regional networks were competitively selected to provide direct financial management technical assistance to local governments.

Research and Technology

In recognition of the State role in local financial management, a number of model bills were drafted dealing with the several aspects of local government financial management, and technical assistance was made available to States interested in developing or revising legislation to improve government financial management.

A major project was funded to develop concepts and standards for modern local government accounting. This three year project, endorsed by the General Accounting Office and the Treasury Department, and encouraged by the Office of Management and Budget, was suggested by local government officials themselves as a possible way to bring greater uniformity to myriad Federal and State reporting requirements, in the face of wide-spread variance from existing standards. This project, being conducted by the National Council on Governmental Accounting, includes cooperation with the other major standards-setting body, the Financial Accounting Standards Board.

Finally, numerous publications have been developed to deal with specific financial management topics where little useful information was previously available. Such publications include: an auditing manual for public officials; a guide and related materials linking budgeting, accounting, auditing and performance measurement for improved financial management; a "practical ideas" series of publications (such as, Practical Ideas for the Government That Has Everything - Including Productivity Problems); and, a series of handbooks for local officials on other important financial management topics.

Most of the information collection and sharing activities described above will continue in 1981. It is too early yet to be able to assess the full impact of these activities, but there are some early indications. As an illustration, more than a dozen of the 44 larger jurisdictions that attended revenue and expenditure forecasting workshops afterwards indicated an immediate intention to implement forecasting systems. More than 20 States are formally developing new legislative packages dealing with local financial management, and one - New Hampshire - has already passed legislation dealing with fiscal notes. Demand for program information remains very high.

In 1981 HUD will assess its experience in fostering information sharing and will seek ways to preserve the most effective sharing mechanisms after Federal research support for them is phased down.

Finally, additional effort will be targeted toward development of financial management materials reflecting the "real world" experience HUD has gathered. The materials will be for use in academic programs and curricula for local officials. Currently it is difficult to prepare prospective local officials adequately for their financial management responsibilities, because, among other things, there is a lack of good case studies for use in curricula.

(2) Other Capacity Building/Sharing Activities

In addition to financial management, other capacity sharing activities are expected to continue in 1981. Based on a 1979 needs assessment, HUD initiated several projects intended to facilitate the participation of women and minorities in public service. These projects include a resource for women in public management, to facilitate contact among these individuals, and to provide technical assistance for career planning to ensure upward mobility; and, an Hispanic emphasis program aimed at better understanding the unique needs and interests of Hispanics in municipal service delivery. It is also anticipated that in 1981 an effort to facilitate Hispanic participation in public service will begin. This program will include support for academic training, work internships, and aid in identifying and securing public management positions.

Research and Technology

An additional need which surfaced through three independent needs identification mechanisms is for better understanding of data and information management. This stems from the growing complexity of local government operations and management, the corresponding isolation of decision makers from direct knowledge of the operations and programs for which they are responsible, and the consequent dependence on information provided by others. In 1980, efforts began to address this need in conjunction with and support of the financial management capacity sharing program. In 1980 a project will be undertaken to assess the quality of financial management information systems, in terms of such things as how data are collected, what information is or can be generated based on this data, and the degree to which that information satisfies the needs of the various parties internal to and external to local governments who require it. This effort will continue in 1981.

Also in 1981, efforts will explore local government capacity to analyze and assess technological developments and alternatives which may have profound implications for how, or even what, services are provided by government. To give an example, not many years ago, many governments were preparing to, and in some cases had begun to, invest in roadside communication networks to ensure that emergency aid could quickly and easily be summoned to any point along major roads. Such networks were extremely costly. In the last couple of years, the need for such networks has been obviated by the technological advances which led to the proliferation of CB radios in private automobiles.

At the present time there is a conjunction of a number of technological advances and other factors. Years ago data processing offered only minor variations on a single theme with the result that local government data processing generally involved centralized data processing with a large scale computer and highly trained data processing staff. New advances in data processing hardware and software offer an incredible variety of options. For example, computers are inexpensive enough so that it is as cheap to store data in a computer as on paper, and it is no longer necessary to learn esoteric software languages to be able to use a computer. These advances in information technology have happened concurrently with corresponding advances in communication technology. When these advances are compounded with the spiraling cost of energy, there may be profound implications for local government organization, structure, and responsibilities.

In 1981, efforts will explore the capacity of communities (in terms of personnel, planning, and management capabilities) to deal with such technological alternatives and their implications. Demonstrations are not envisioned; rather it is anticipated that the experienced communities which are already involved in assessing and adapting major technological innovations will be examined. The necessary capabilities, the costs and the benefits, resulting institutional changes, and any other information which can help local governments facing similar decisions, will be identified.

This examination of ongoing major technological innovation may also suggest areas where additional technological development could be of significant benefit to local government.

In 1981, efforts will also continue to develop reliable means for assessing local government management capacity and to identify how Federal actions impact that capacity. Also, HUD's liaison with local government, through the Urban Consortium and the Intergovernmental Science, Engineering and Technology Advisory Panel, will continue.

6.2 Environmental Studies

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
...	...	...	$475

Environmental hazards, both natural and man-made, impact upon the lives, property, and well-being of urban residents in a variety of ways and in an inequitable manner. Often the effects of these hazards are not borne by those who cause them, e.g., noise and air pollution. The burden is frequently disproportionately heavier on the economically-and-socially disadvantaged. HUD research into environmental hazards seeks to understand their mechanisms and effects, in order to develop standards and guidelines to mitigate or avoid their consequences, at the lowest cost possible.

The research program for 1981 will continue the shift, begun in 1979-1980, toward significant environmental hazards, other than lead-based paint. Emphasis is being placed on improving the methodology for preparing environmental impact statements (EIS) in order to lower the cost and time spent in carrying out these analyses. Initiatives planned for 1981 include: (a) research on the utilization of remote sensing data, gathered by other agencies, for urban environmental quality analysis; (b) computer-based storage, retrieval, and analysis of data for preparation of EIS; and, (c) demonstration of area-wide assessment techniques developed by HUD of specific hazards such as toxic waste disposal, radiation hazards, indoor air pollution, noise and lead exposure.

Research on natural hazards, previously conducted by HUD, has now been transferred to the newly created Federal Emergency Management Agency (FEMA). Along with this function, HUD has also transferred the results of completed research projects which provide FEMA with alternatives for implementation of Section 1302 of the National Flood Insurance Act of 1968, and, the feasibility of flood-proofing for small commercial buildings.

Research concerning lead poisoning continues to decrease, primarily due to a better understanding of the problem and to successful completion of a number of the original objectives. Over the the past three years, four new lead-based paint, hazard-abatement technologies have been developed, one of which has already moved to commercial development and is currently being marketed. Another HUD developed technology also has considerable commercial potential. HUD has completed several field demonstrations of lead-based paint hazard abatement and has published several reports on its techniques and economics. Of greatest impact has been the analytical studies of lead levels in children in urban areas. These analyses show high correlation between lead levels in children and demographic and environmental factors other than lead paint on walls. The highest is correlation with levels of lead in gasoline. The results of HUD's research have made a major impact on the setting of both gasoline and air-lead standards by the Environmental Protection Agency, and by equivalent agencies in Canada and Great Britian.

Evaluation of the lead-based paint poisoning research program, by HUD staff and by the National Academy of Sciences has led to a redirection of HUD's research role in this area, and to the consequent budget reduction to the $100,000 currently being requested, for the lead-based paint poisoning research within this activity.

6.3 Economic Development and Public Finance

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	CURRENT ESTIMATE 1981
	(Dollars in Thousands)		
$1,755	$1,600	$1,835	$1,550

HUD's research in this field assists States and local governments with problems of development, private employment opportunities, revenue, and finance. Solutions to the urgent problems of housing, neighborhood decline, and loss of vitality of central cities depend directly on local economic development efforts that can attract private investment, generate employment and entrepreneurial opportunity, and sustain the local tax base. The current fiscal crises of many local governments underscore the interrelated need to improve local economic conditions and local government finances.

(1) Economic Development

A major responsibility has been the continued preparation of Urban and Community Impact Analyses for the Department's new initiatives, in accordance with guidelines in OMB Circular A-116. Several other Urban Impact Analyses of Federal programs have also been prepared or commissioned. Urban Impact Analyses, whose methodology has been developed largely by HUD research staff, have demonstrated important linkages between Federal programs and local economic development patterns. These analyses have become a major new and permanent tool in planning new programs for HUD, and their use is growing in other agencies.

Other recent efforts in economic development included: (a) a conference on the public-private interactions fostered by the UDAG program; (b) a study that analyzes the housing and economic development impacts of California's recent drought and water shortages; and, (c) a study on the direct employment effects of industries that expand or relocate in distressed areas.

(2) Public Finance

Research on tax and expenditure limitations was a major component of the public finance effort. Analyses have been commissioned to examine the Michigan tax limitation amendments, as well as the implementation and impact of California's Proposition 13. Related to California's initiative, a conference on tax and expenditure limitations was held in Santa Barbara, California. The papers presented at that conference have been published in a special supplement of The National Tax Journal. A principal finding was that local taxpayers seem to be attempting to shift tax burdens from property taxes to other sources, rather than simply reducing expenditures.

The fiscal implications of State and local pensions is of vital concern to taxpayers and public servants alike. It is the subject of a major study. A combination of actual and simulated economic analysis will be undertaken for both large and small public pension systems. The analysis will include funding status, benefit adequacy, and projection of fiscal impacts on local governments.

The analyses of conditions of the urban capital infrastructure has produced two publications by the Urban Institute thus far: The Future of New York City's Capital Plant, and The Future of Cleveland's Capital Plant. Case studies of other cities will be published in the future.

New and continuing projects include studies of: the impacts and distribution of Federal block grants to local governments; issues related to Federal tax-exempt

property; and, urban economic indicators. Work has also continued on developing better public finance data. The Assistant Secretary of PD&R chairs the Interagency Task Force on Urban Data. This task force supports in-house and external research on fiscal data and other urban indicators.

6.4 Community Growth and Land Use

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$499	$1,015	$675	$600

Accomplishments in 1979 included the completion of a joint HUD - National Science Foundation project on methods by which local governments can better manage development through coordinated capital improvements. Also completed in 1979 was a study of ways localities can reduce delay in the administration of zoning, subdivision, and environmental regulations.

In 1979 and 1980 new research was initiated on key economic questions of land development patterns and regulations. A major project is the analysis of the use of urban infill as an economic alternate to urban sprawl. Urban infill is a strategy of encouraging the development of by-passed, vacant lands in areas where public services are already in place. Studies are underway in three metropolitan areas -- Miami, Dade County; Rochester, Monroe County; and Seattle, King County -- to assess the extent of infill opportunites and costs of utilizing them. The project has attracted nationwide interest.

A related project will investigate ways of monitoring urban land prices. Land prices are rising at twice the rate of national inflation, and they are contributing substantially to rising housing and business costs. The project will try to develop ways by which policy makers can affect land prices through public actions on land supply and demand. A third initiative is a major study of the effects of land-use regulations on the costs of housing. The study will survey public officials and builders in 500 communities, and there will be intensive case studies in six cities. An important study of State and regional urban policy continues. It was commenced in 1979. In parallel with the Federal Urban Policy, numerous States and regional agencies have been evolving their own urban strategies to encourage more orderly growth and to stem costly urban decline. Some of these strategies may be worth replicating elsewhere; others may be in conflict with their neighborhoods or with Federal policies. The results of the study should improve our ability to assist useful local efforts, and provide a basis for others to improve theirs.

In 1981, work will continue on the economic consequences of development patterns and regulations and the urban infill research will be concluded. Several regional demonstrations are expected to be launched to monitor land prices and the supply and demand for developable land. The effects of recent national changes in the capital financing and future availability of capital infrastructure will be assessed. PD&R will look at the availability of sewer, water, roads, and transit to support future housing. This topic will be a major concern for cities and suburbs in the 1980's. It affects not only municipal fiscal conditions, but housing and business costs.

VII. ENERGY CONSERVATION AND STANDARDS RESEARCH

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$2,349	$1,900	$1,700	$2,800

7.1 Energy Conservation and Utilities Research

HUD APPROPRIATION

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$1,275	$1,400	$1,200	$2,800

DEPARTMENT OF ENERGY TRANSFERS

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
($980)	(...)	(...)	(...)

The conservation of energy and water in the construction and operation of housing is among the nation's highest priorities for economic and environmental reasons. This program investigates new energy and water conservation designs, and where appropriate, encourages their development and use in all new and existing residential structures, including mobile homes.

Major Areas of Activities

(1) Energy Impacts on Housing Policy

Because over 30% of the nation's energy supply is used to heat and cool buildings, the availability and cost of energy directly affect housing. Following the oil embargo in 1973, the recognition of this relationship has led to a series of legislative incentives, enacted and proposed, directed to reducing the consumption of energy, both in existing and in new dwellings.

Many of these incentives are now being implemented as new public programs to reduce energy consumption. At the same time, energy costs continue to rise, and new techniques for reducing energy use and substituting renewable energy supplies (such as solar energy) are constantly being announced. These changes will have a profound impact on the quality of housing and the choices open to Americans in the coming years, but to date no assessment has been made of this impact or ways to minimize its negative aspects.

In 1980, HUD is undertaking an initial assessment of the key relationships between energy and housing. Identified will be the policy issues which housing and energy experts consider most important in the coming decade. A series of commissioned papers by recognized authorities will form the basis for a workshop discussion of these issues.

In 1981, HUD plans to initiate the specific research activities, data collection, and evaluation programs recommended by the workshop. This information

will then be used to develop policy and program recommendations to minimize the negative impact of energy-related problems on housing quality and housing choices.

(2) New Energy Efficient Systems

The continued demonstration and evaluation of new energy efficient systems for residential structures is an outgrowth of our first Energy-Efficient Demonstration Residence. This demonstration was begun in 1978 and should continue through 1983 and perhaps beyond. An Energy Efficient Residence (EER) will be constructed in the Washington, D.C. area in 1980. Houses will be designed for every HUD Region. They will include a variety of cost-effective, energy-efficient systems, many of which may not now be available but which should become readily available to builders within the decade. Data gathering, analysis, and evaluation will be initiated in 1980. Subject to the results of the 1980 activity, other EER residences are planned for 1981.

(3) Energy Conservation Demonstration in Rehabilitated Structures

In 1975, HUD issued "In the Bank or Up the Chimney," a highly popular pamphlet designed to aid homeowners in the selection and installation of effective energy conservation measures. Although highly successful and popular, there were some limitations in this document. First, this document was primarily addressed to residential units constructed after 1940. Houses built prior to 1940 frequently have quite different construction characteristics, which do not permit the direct application of the solutions contained in "In the Bank or Up the Chimney." For example, rafter roofs and floored, usable attics (rather than truss-type roofs) usually restricted the amount of attic insulation that could be added. Wood laths and plaster applied directly to exterior masonry walls restrained the amount of wall insulation that could economically be added. To assist the owners of older American houses in conserving energy, HUD is currently developing a new pamphlet, similar, to "In the Bank or Up the Chimney," which would provide them specific recommendations for conserving energy.

There are considerable gaps in our knowledge about effective means for conserving energy in older residences. Most energy conservation research has been focused on the post-World War II home. The older home frequently has much different dimensions (larger rooms, higher ceilings, etc.), different temperature responses (due to the effect of mass), and may require entirely different energy conservation strategies. Many of these older houses were not designed for central heating (or cooling). Installations made during an energy-cheap era may have to be reexamined and substantially changed. Our efforts will focus on cost-effective means for providing energy conservation under such conditions. The earlier effort (for post-1940 homes) was largely derived from the state-of-the-art for new construction. This effort will result from analytical investigations and measurements conducted on older demonstration houses rehabilitated for energy-conservation purposes. In addition to the new pamphlet, the results will be used to encourage energy-conservation products designed specifically for the older house, and for revising energy-conservation standards for rehabilitation projects.

(4) Health and Safety Effects of Energy Conservation Measures

The effects of energy conservation measures on residences and their occupants are becoming more important as air leakages are sealed and insulation levels are increased. There are indications that indoor air quality may suffer as a result of inadequate ventilation in very tight homes. Increased levels of insulation and misuse of vapor barriers may cause moisture problems, fire hazards, and corrosion under some circumstances. In cooperation with DOE, NBS and EPA, HUD will examine these problems.

(5) Infiltration Research

Infiltration of air resulting from cracks and openings in the building envelope can account for a significant amount of energy loss in residential structures. A project was initiated in 1979, and will continue through 1981, to develop safe and healthful methods of controlling infiltration.

(6) HUD Minimum Property Standards (MPS) Insulation Standards

The insulation standards of the MPS for minimum thermal insulation, thermal transmittance through walls, and maximum glass areas have been critized as not being cost-effective. Planned research includes a cost/benefit analysis which balances savings in actual energy consumption against initial capital requirements and any other offsetting operating costs. It will examine structures using different construction methods and the effects of varying climatic regions. The results may generate recommendations for further revisions of the MPS insulation standards. A project study of the effect of thermal mass (bulk and weight) was initiated in 1979 and will continue through 1981. This project should help establish whether increased wall mass, such as masonry or log construction reduces the required level of insulation in walls.

(7) Public Housing Energy Conservation Demonstration

A proposed HUD rule, "PHA-Owned Projects - Energy Audits and Energy Conservation Measures," will require energy conservation in public housing. Under it, public housing management will have to: (a) conduct energy conservation audits on on all projects; (b) identify opportunities for cost-effective energy conservation; and then, (c) enumerate and rank these energy conservation opportunities on the basis of potential savings. During 1980 and 1981, an Energy Technical Assistance Package (Energy TAP) will be produced. This will aid HUD field offices to assist public housing administrators to understand and perform their mandated energy-conservation roles. Materials for the package are expected to include brochures, training manuals, guides, workbooks, forms, computer programs, films, tapes and/or slides.

In 1981 follow-on elements of the program, which affect the approximately 1.3 million public housing units in the United States, will include: (a) documentation of existing public housing energy-conservation demonstrations, so that valuable experience can be transferred to other public housing authorities; (b) the development of operating manuals for energy-efficient maintenance of public housing facilities; and, (c) the creation of a package of tenant education materials and the identification of incentives for the public housing residents to support energy conservation goals.

(8) Neighborhood Energy Conservation Manual

The "Neighborhood Self-Help Development Act of 1978" Title VIII of P.L. 95-557, provides that energy conservation and weatherization projects are eligible for grants and other forms of assistance. During 1980 and 1981, Neighborhood Energy Conservation Materials will be developed to assist neighborhood organizations in producing well prepared proposals and projects. An appropriate combination of materials will contain: (a) information on organizing the community to introduce the energy issue; (b) a framework for the basic neighborhood planning process; (c) a catalogue of energy-saving ideas; (d) a compendium of available government energy-conservation programs applicable to neighborhoods; (e) proposal preparation procecedures; (f) ways of working with and through local governments; (g) illustrative case studies; (h) a selected annotated bibliography; and, (i) an indexed survey of neighborhood energy conservation projects and programs.

Research and Technology

(9) Residential Energy Efficiency Standards Study

Section 253 of the "National Energy Conservation Policy Act of 1978" directs HUD to perform a feasibility study of mandatory energy programs with requiring "mandatory Federal action" for existing residences (1-4 unit dwellings) to make them meet "applicable energy efficient standards." In particular, HUD is to study whether the time of sale or exchange is the appropriate point to impose a prescribed energy efficiency standard.

The National Institute of Building Sciences is aiding HUD in this study. It is developing energy efficiency standards for existing residences, estimating potential energy savings and retrofitting costs, and assessing potential impacts on the building industry. In addition, the Urban Institute is assessing the impact of a Section 253 requirement on households and housing markets, and examining possible methods of administering and implementing a mandatory energy efficiency standard. A progress report has been prepared and transmitted to the Congress. A final feasibility report is to be sent to the Congress in mid-1980.

(10) Solar Energy and Conservation Bank - Technical Support

Legislation is under consideration which would authorize a Solar Energy and Conservation Bank to provide low-interest loans for energy conservation and the purchase and/or installation of solar energy equipment in housing and other buildings. The Solar Energy and Conservation Bank is to be organized as a separate corporation within HUD, similar to the GNMA organization, and is expected to be approved and to go into operation in 1980. HUD will provide technical support for the new Bank. HUD will first develop procedures to establish loan levels for passive solar applications. In contrast with active solar systems, which generally have specific equipment and identifiable costs, passive solar applications utilize elements of the building structure, and their costs cannot readily be separated from the basic structural cost. Recognizing this, the legislation directs that the level of assistance for passive solar systems vary according to the estimated amount of energy which they save.

The procedure being developed will use a set of "recognition factors" and supporting material which will enable lenders to determine quickly whether a specific building qualifies for a passive subsidized loan. Once eligibility is ascertained, the lender can then use a special table of potential savings for typical passive solar applications to determine the level of loan appropriate for a specific project. Also in 1980, HUD is continuing to refine technical standards and calculations for solar installations, drawing upon experience from the HUD solar demonstration program. The House bill directs that evaluation of active solar systems also be shifted from cost savings to energy saved in 1981. The procedure developed for evaluating passive solar applications will be adapted, if possible, to determine assistance levels for active solar systems.

In 1981, HUD will seek further refinement of technical standards, operating requirements, and other features of the Solar Energy and Conservation Bank program based on the needs shown in early operational experience with the Bank.

(11) Mobile Home Energy Conservation

Because mobile homes comprise 17% of all new single family dwellings and about 85% of all residences under $20,000, effective energy conservation measures and construction standards are urgently needed to give guidance in this major segment of the housing market. In addition, a large portion of mobile homes are occupied by low- and moderate-income families, who can ill-afford the rising cost of energy thus, there is further urgency for reduction in energy use.

Research and Technology

During 1981, the thermal envelope research project (studying the thermal performance of mobile-home wall, ceiling, roof, floor, door, and window assemblies) will be concluded. In addition to proposed improvements in the Federal mobile home standards, a design manual will be prepared to assist designers, architects and builders of mobile homes. A new project will be undertaken, seeking substantial improvement in mobile home furnaces and air-delivery systems. A second new project will begin, relating to very cold weather performance standards (as in Alaska). Studies will address water-supply freeze-ups, indoor air quality under prolonged recycling, as well as thermal performance.

(12) Residential Water Conservation Research

This program develops data on residential water conservation and municipal supplies. The President, on July 12, 1978, directed that a program of water conservation become part of the housing programs of HUD, the Department of Agriculture, and the Veterans Administration. Despite a predicted doubling of water needs by the year 2000, little research has yet been done in this field.

Not only is there increasing water need, but costs are rapidly rising, a trend which will continue. Cost increases result from the use of less accessible sources of supply, the increased treatment standards of the National Drinking Water Quality Standards, and from the inflationary pressures faced by the economy as a whole. The impact on the individual user and the municipality can be reduced through more efficient use of existing supplies. Real cost and energy savings (decreased fuel use) would result from decreased water-processing, distribution, heating, and use. For these reasons, water conservation research will be continued and broadened. The research conducted in 1980 will include:

a. Residential Water Conservation Handbook

A water-use handbook will be produced to assist homeowners and renters to use water more efficiently. This consumer publication will contain information on household water management practices, repair and maintenance of water using systems, purchasing of water-saving devices, and plumbing modifications.

b. Water Conservation Appliance Performance Test

This project will develop baseline technological information for conservation in residential water consumption devices and systems including plumbing fixtures, fittings, and appliances. From this baseline information, performance standards and evaluation procedures will be derived. This information is needed by consumers, State and local government code officials, standards bodies, and legislators, in order to have a more rational basis for making choices and mandating improved performance.

c. On Site Sanitary Devices

HUD is collecting information about water reuse and recycling to find ways to reduce community needs for fresh water, to understand social reaction and health implications of reuse, and to develop proposals for acceptable reuse programs. Activity for 1981 will include: (1) the development of guidelines for water conservation and reuse in long-range planning; and, (2) demonstrations of water efficient household systems and appliances in single-family houses, multifamily buildings, communities, etc., to illustrate the ways in which the practices could/should be implemented, and to document the benefits.

7.2 Solar Heating and Cooling

Department of Energy Transfers

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
($15,000)	($6,200)	($11,000)	($5,000)

The HUD solar program, established under the authority of the Solar Heating and Cooling Act of 1974 (PL 93-409) as an element of the national program managed by the U.S. Department of Energy, is now approaching completion. PL 93-409 called for a five-year program. The initial program plan (ERDA 23A) specified five cycles of demonstration projects over this period, leading to the commercial readiness of solar heating and cooling systems. The plan also called for standards development, market studies, and information dissemination which, together, were expected to help bring about an effective solar industry, and a growing solar market.

In 1979, HUD completed the fifth of the planned five cycles of solar demonstration grants. It concentrated on energy-conserving, passive solar installations, as the most cost-effective and immediately applicable form of solar energy. With the Cycle 5 construction awards, HUD has funded over 750 projects involving almost 12,000 dwelling units, located in every State, in Puerto Rico and in the District of Columbia, and involving all types of housing. In 1979, HUD also completed and published two studies of the legal issues involved in "solar access", or the right to receive sunshine. One study addressed the problems of solar access and sun rights in existing, built-up areas where property rights are already established. The resulting report, Solar Access Law, has been acclaimed as the definitive work in this area. The other study looked at the legal and technical issues involved in assuring solar access in new developments. One report, Protecting Solar Access for Residential Development, provides guidelines for public officials on land-use control methods to assure solar access, while another report, Site Planning for Solar Access, provides guidelines for site planners and developers on the design and development of new projects.

In 1980, HUD activities include an improvement in the information response capabilities of the National Solar Heating and Cooling Information Center and a continuing evaluation of the data being collected from the demonstration projects. The Information Center, operated under a HUD contract by the Franklin Research Center, has responded to more than half a million inquiries since it first went into operation October 1, 1976. Due to increasing concerns about energy in recent months, the volume of telephone calls has increased greatly, resulting in many callers receiving busy signals. HUD expects to increase the call-handling capabilities of the Center during 1980.

In 1981, more and more of the demonstration project will be completed and sold. It is expected that the data to be obtained from these projects will confirm the improved technical capability found as HUD evaluated the original applications. Early in 1980, as the steadily decreasing number of active projects call for less support to technical and market-experience, reports based on the first three program cycles will be published. In 1981, it is expected that HUD will revise and improve this information from the later demonstration cycles, which stress passive solár designs, thereby providing the latest current useful information on solar installations and the marketing of solar projects to the housing industry. This information will help support the activities of the Solar Bank, and encourage more builders and other housing sponsors to consider solar energy in their project development. Program expenditures will continue to decline following 1980, as the steadily decreasing number of active projects call for less support to monitor and manage these projects.

7.3 Utilities and Energy Systems

HUD APPROPRIATION

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$1,074	$500	$500	....

DEPARTMENT OF ENERGY TRANSFERS

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
(...)	($150)	(...)	(...)

The work described in last year's budget under this section differed very little conceptually from that undertaken in 7.1 above. Therefore, all future work and funding have been included under 7.1.

VIII. PROGRAM EVALUATION

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$6,083	$5,863	$5,050	$7,225

The Assistant Secretary for Policy Development and Research provides the Secretary, the Under Secretary, and other principal staff of the Department with an in-house capacity to perform a broad range of priority analytical research and evaluation activities. This work includes: the preparation of quick response papers; outlines of new program alternatives for use by the program offices; actual initiation and demonstration of new policies; field investigations providing feedback on the impact and effectiveness of HUD programs; surveys of the general public and of special samples; cost effectiveness and cost/benefit analyses of HUD programs; and, rigorous evaluations of the success of HUD programs in achieving their objectives.

(1) Evaluation of Housing Programs. For 1980 and 1981 we will focus on the evaluation of new housing programs and new innovations in them. Several of these studies were begun in 1979. The principal evaluations continuing into or beginning in 1980 are:

(a) Income Certification and Recertification - The evaluation will provide HUD with information on the extent and severity of incorrect rent payments by tenants of HUD assisted apartments. It will also identify cost-effective methods for improving determinations of tenant eligibility and rent. Tenants and project administrators of 500 projects under Section 8, Section 236, and Public Housing will be surveyed. The project includes matches of IRS/SSA data to determine misreporting of income, experimental application of uniform income-verification procedures, in-depth interviews with administrators, and the collection of actual income and rent data from a large number of tenants. The analysis will concentrate on: (1) the measurement of error rates and costs; (2) a study of administrative practices and their effect on error incidence; and, (3) a cost-benefit analysis to identify cost-effective alternatives. The study will be completed by the end of 1980.

(b) Urban Initiatives Evaluation - This study will examine the Rehabilitation/Management Assistance component of the Public Housing Urban Initiatives Program (PHUIP). The evaluation will: (1) document the physical and management changes implemented under the program; (2) measure the impact of these changes on the general housing quality of the targeted projects (including the physical condition of the projects); and, (3) measure, to the extent possible, the impact on management performance. Initial data were collected in the Fall of 1979 by use of interviews with management and tenants, physical inspections of the projects, and collection of financial operating data and other factual records. These data provide information on the status of the projects before program implementation. Parallel data are expected to be collected in 1982, to provide information on the post-program implementation. The study is scheduled to be completed in 1982.

(c) Evaluation of the Congregate Housing Services Program - HUD's Congregate Housing Services Program funds public housing authorities and nonprofit Section 202 sponsors to provide meals and other nonmedical support services to their semi-independent elderly and handicapped tenants. Funding is currently on a demonstration basis only, and an evaluation has been mandated by Congress.

The evaluation will examine whether the unique features of this program make it more appropriate for use in HUD-funded projects than alternative Department of Health and Human Services programs which provide similar services. The evaluation will also examine costs of the program and assess its potential to

decrease rates of institutionalization for certain elderly and handicapped tenants.

(d) Evaluation of Graduated Payment Mortgages and Single-Family Coinsurance - The purpose of this evaluation effort is to study the effects of two recently created programs (Graduated Payment Mortgages and Single-Family Coinsurance) designed to provide broader options in FHA single family operations. The GPM provides insurance on loans in which the monthly payment is initially lower than a regular amortized payment but, gradually, increases over several years to make up the difference. The coinsurance program, which trades faster processing for potentially higher but partially shared risk, and graduated payment mortgages are expected to increase rapidly in use over the next few years.

Basic questions to be answered are: (1) does the GPM and Coinsurance programs provide homeownership opportunities for moderate-income families who otherwise could not have obtained a mortgage; (2) what types of lenders and borrowers use these programs and why are they participating; (3) why has the coinsurance program been little used previously; and, (4) what has the default loss experience been and can future loss potential be projected?

(2) Evaluation of Community Development Programs. PD&R has initiated a full range of studies on the Community Development Block Grant program. The emphasis in 1980 and 1981 will be on analysis and presentation of the first major results of the Community Development Strategies Evaluation, which is PD&R's principal research initiative on the program. The major studies currently underway or recently completed are:

(a) Community Development Strategies Evaluation - Design work and baseline data collection have been accomplished for a study of the impacts and benefits of alternative neighborhood strategies, the data covering rehabilitation, demolition/redevelopment, services/facilities, and combinations of these activities in residential neighborhoods. The field work includes extensive household interviews on samples of assisted rehabilitated units and comparison units. In addition, there are interviews with households in neighborhood clusters in nine cities chosen to cover a diversity of city and neighborhood characteristics and community development activities. The surveys are comparisons over time. The data include physical inspections of housing to support an analysis of the durability of rehabilitation over time, and visual inspections of the adjacent streets and housing.

The impacts to be studied include: (1) the characteristics of beneficiaries by income, race, household size, etc; (2) the extent and nature of benefits to target groups; and, (3) changes in the physical housing stock of neighborhoods. The work also includes a study of the citizen participation process. During the remainder of 1980 and 1981, reports of the analysis of first-round data will be initiated, and the final rounds of data collection in the nine cities will be conducted. The second-round data will permit analysis of moving-in/moving-out patterns in community development neighborhoods, and analysis of effects of community development assistance during the period between the first two rounds. The third-round will include follow-up interviews on the clustered-neighborhoods sample and samples of lenders, owners, and managers, for purposes of tracing impacts over the period of the study.

(b) Brookings' Monitoring Study - The Brookings Institution has been monitoring the Community Development Block Grant Program in over fifty jurisdictions across the country. Eventually, this study, which will continue through 1981, will provide longitudinal data on the first six years of CDBG. The central theme of the monitoring project has been the evolution of the decision-making process at the local level, in response to the CDBG program. Other areas of interest have been the programmatic uses of CDBG funds, the distribution of program benefits among income groups, and the national allocation system for distributing CDBG funds. The monitoring is carried out by a network of field associates, who

are trained social scientists residing in or near the jurisdictions which they monitor.

The monitoring projects' first two reports provided HUD with important information on the national entitlement formula for distribution of CDBG funds. In particular, information in the first report assisted HUD in designing changes in the formulas. These changes, which were enacted in 1977 CDBG legislation, were shown in the second report to have resulted in better targeting of funds to declining metropolitan areas. These reports also provided evidence that local coordination and control of community development activity has increased under CDBG relative to HUD's previous categorical community development programs, that smaller-scale, more diversified activities are more common under CDBG than under the categoricals, and that there has been particular emphasis on housing rehabilitation.

A third report covering the third and fourth program years, will be available in mid-1980. This report, "Targeting Community Development," will pay special attention to the impacts of HUD regulations concerning targeting of benefits to low- and moderate-income persons and to well defined neighborhoods; it will also continue the examination of the evolution of local decision-making in response to CDBG, which was begun in the first two project reports. A preliminary analysis of report data indicates the following findings: (1) there appears to have been increased targeting of program monies to low- and moderate-income persons and to geographic neighborhoods; (2) responsibilities for CDBG are increasingly being institutionalized in community development departments; and, (3) citizen influence in CDBG appears to be growing.

The final project report, which will cover the fifth and sixth years of the CDBG program, will be produced in 1981. In this report, particular emphasis will be placed on the quality of program execution. Now that the CDBG program has been underway for several years, it will be possible to analyze factors which affect the rate of program execution. These may include previous community development experience, complexity of program design, or communication problems between community development departments and other agencies. A series of in-depth case studies of CDBG in approximately 10 cities will also be produced by the time of project completion.

(c) Formula Study - This Congressionally-mandated study, entitled "City Need and Community Development Funding," focused on Community Development Block Grant impaction formulas and single-formula systems. Impaction formulas are allocation formulas in which certain variables are weighted to emphasize particular elements, e.g., a formula in which the number of poor persons is further weighted by the percentage of the jurisdiction's population which is poor. The study also examined Annual Housing Survey data to determine whether pre-1939 housing is a good indicator of housing and neighborhood problems.

The study used twenty indicators (e.g., poverty, crime, employment loss, etc.) of community development need to construct indices that measure the relative seriousness of community development problems experienced by different cities. Correlation and regression techniques were then used to measure the responsiveness of the current dual formula and fourteen alternative formulas to the need indices. In addition, the formulas were evaluated using indicators of fiscal capacity and tax effort.

The main conclusions of the study were: (1) the current dual formula exhibits a much higher level of targeting according to city need than the 1974 single formula that it replaced; (2) compared to the current dual formula, formulas that weight pre-1939 housing and overcrowded housing with the percent of poverty increase the targeting of community funding according to need; (3) dropping the absolute population variable in favor of poverty increases the overall response to need; and, (4) pre-1939 housing is significantly associated with hous-

ing deterioration and neighborhood blight, especially when it is tied to renter status or low-income concentrations.

(d) Urban Counties Evaluation - An evaluation of the performance of urban counties in the CDBG program will be completed in early 1980. This study is a joint effort by the Offices of Policy Development and Research and Community Planning and Development. The major objectives of the evaluation are to describe the experiences of urban counties in implementing their CDBG programs, to analyze the relationships of urban counties with their cooperating jurisdictions, and to assess the overall performance of urban counties. With respect to the latter, indices have been developed which measure the performance of urban counties as to program responsibility, comprehensive strategies, Federal compliance standards, low and moderate benefits, HAP's, and program management efficiency. Statistical analysis of these performance indices will show which factors (e.g., size, region, previous experience, etc.) are associated with good performance.

(e) Small Cities Evaluation - This study, also jointly managed by PD&R and CPD, is the first comprehensive, nationwide evaluation of the Community Development Block Grant program in small cities. The evaluation has two major purposes: (1) to explore how the design of the Small Cities component of the CDBG program affects its ability to aid small communities in meeting their needs; and, (2) to determine how well smaller cities have been performing within the framework of the current program and how the availability of technical resources affects performance. Extensive analysis of HUD files as well as surveys of successful program applicants, unsuccessful applicants, and non-applicants will be conducted. Reports on several components of the Small Cities program will be prepared, including reports on: the Project Selection System, the Housing Assistance Plan, distribution of benefits to low- and moderate-income persons, compliance regulations, local planning and implementation, and comprehensive strategies. These will be available in early 1981. A summary report which relates overall performance to program design and to the availability of technical resources will also be produced early in 1981.

(3) Evaluation of Equal Opportunity and Consumer Programs - In conjunction with the fair housing research activities described under subcategory 4.1 above, the major new evaluation initiatives relating to this area planned for 1981 are an update of the Fair Housing Evaluation and an evaluation of Title VIII complaints handling by States.

(a) Fair Housing Evaluation - In 1979, PD&R provided the first national and regional estimates of racial dicrimination in America's sales and rental housing markets. The project--popularly known as the Housing Market Practices Survey--provided direct measures of discrimination by sending homeseekers into the actual market place. The procedure used is called auditing, or testing. Identically matched in all characteristics except their race, approximately 600 teams--each team consisting of one white and one black--visited randomly selected rental and sales agencies. Aggregating the relative treatment of teammates allowed an assessment of whether blacks were systematically treated differently than whites. The findings reported gave irrefutable evidence that the nation's civil rights laws and their enforcement have not succeeded in eliminating discrimination against blacks. The measures of racial discrimination which the study yielded are a baseline against which future progress in eliminating such treatment of minorities can be measured.

In November, 1978 PD&R conducted an extension of its Housing Market Practices Survey (HMPS) (which dealt exclusively with blacks) in Dallas, focusing this time on a different minority group, Hispanics. Dallas was chosen because it was also one of the sites for the HMPS study, and it, therefore, allowed the first direct comparison of the levels of the discrimination suffered by each minority group. In this study, the audits were conducted solely on rental housing. The study found that while all Hispanics encountered discriminatory treatment, dark-

skinned ones encountered significantly more than light-skinned ones. The level of discrimination against light-skinned Hispanics and blacks was roughly equal in Dallas.

The second Fair Housing Evaluation will be another important milestone in assessing the nature and extent of discrimination. The initial Fair Housing Evaluation data on discrimination were the first reliable, nationwide estimates of the problem. They provide a permanent baseline against which the effectiveness of future efforts to eliminate discriminatory practices can be measured. It is extremely important to repeat the audit project, so that changes in discrimination over time--and the factors influencing the observed changes--can be determined. Therefore, a "second round" of evaluation is scheduled.

The second Fair Housing Evaluation is timed to maximize policy and research benefits by collecting its measures of discriminatory treatment near the time when 1980 Census data are collected. This timing is crucial in order to accurately compare discrimination measures with factors frequently believed to influence discrimination, such as vacancy rates and the racial composition of areas in which minorities seek housing -- data which are available for all areas of the Nation only from the decennial census. The first Fair Housing Evaluation was limited to comparisons of the treatments received by black homeseekers relative to white homeseekers in most, but not all, segments of the rental and sales housing markets. In addition to measuring any changes in the nature and extent of discrimination against blacks between the first and second studies, the second round of the Fair Housing Evaluation will measure nationwide discrimination against America's large and growing Hispanic population. Also under consideration is expansion to segments of housing markets not covered in the first study, such as condominiums and new subdivisions.

(b) Title VIII Complaints Evaluation (1981 Activity) - This project will document the characteristics of complainants and respondents in HUD's Title VIII complaint process. This will be the first national study of the parties involved, and of the nature of the complaints. It will be based on a sample of successfully conciliated, unsuccessful, and withdrawn complaints. The study's objectives are: (1) to provide a comprehensive description of the demographic and housing characteristics of Title VIII complainants and respondents throughout the United States, by categories of complaints; (2) to provide an assessment, based on interviews of complainants and respondents, of the complaint conciliation process; and, (3) to record the outcomes of successfully conciliated cases, focusing on types of benefits and direct awards to complainants.

IX. RESEARCH AND PROGRAM SUPPORT AND UTILIZATION

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$1,664	$2,700	$3,050	$3,404

9.1 Program Planning and Management

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$775	$1,200	$1,550	$1,585

Activities funded under this budget category provide support and management services for the research, demonstration, evaluation, economic analysis, and policy development functions of PD&R. Activities include: (a) the continuous maintenance and upgrading of a research management information system, which produces a series of internal and external reports, including quarterly progress reports to the Congressional Appropriations Committees; (b) the continuing development of program control and contractor reporting systems, through which PD&R's Government Technical Representatives maintain control and supervision of contractors and grantees; (c) management tasks which cut across two or more research budget lines; (d) longer-range planning which attempts to anticipate future research needs and direction; and, (e) support for a modest amount of cooperative international research.

Active projects on which HUD is cooperating internationally include Internal Systems for Utilities in Buildings, and External Systems of Utilities in Populated Areas. Disciplines covered include water supply, waste water, solid waste, fuel distribution and use, electric distribution and use, space conditioning (heating and cooling), controls, and street lighting.

9.2 Transferring Research Results

ACTUAL 1979	BUDGET ESTIMATE 1980	CURRENT ESTIMATE 1980	ESTIMATE 1981
	(Dollars in Thousands)		
$889	$1,500	$1,500	$1,819

More effectively than ever before, PD&R--through approaches discussed below --will transform its research reports and findings into materials which are widely accessible, understandable, and useful to the public and professional groups HUD serves.

By the end of 1981, PD&R's computerized report data base, HUD USER, will contain summaries of over three thousand publications and reports. Accepting both mail and phone requests (which, at the start-up, ran about 250 per month and after six months reached 1,200 per month), the HUD USER system provides annotated computer printouts giving information on these research products, with sources for ordering to anyone seeking them.

This service provides bimonthly bulletins and semiannual compendia announcing latest research results. When registering, the users describe their professional concerns and the areas of PD&R research in which they are most interested. As a

result of this, by 1981, PD&R will be targeting from these user profiles, those most likely to want any particular publication, and HUD will have eliminated scattershot mailing of lengthy and expensive reports.

A project initiated in 1980 and continuing through 1981 is making an analytic assessment of the many different types of users of PD&R research. Their various information and research needs will be determined and the transfer techniques best suited to each group will be provided. These techniques may include film strips, seminars, workshops, and other face-to-face techniques, as well as various forms of written materials.

One particularly effective way to support further research in housing and urban development is to share data with independent researchers. In 1980 and 1981 HUD will make accessible to the research community computerized data sets accumulated by the Experimental Housing Allowance Program, Section 8 research, the Annual Housing Survey, the Gatreaux evaluation, and the Louis Harris survey of community attitudes.

Also presented will be significant findings to other researchers through a continuation of two unusual initiatives begun in 1979: (a) the multivolumed Occasional Papers, with each volume a compilation of important recent articles on a single, major, community problem, many prepared by PD&R staff; and (b) through support of special issues of scholarly journals, such as the Black Scholar, the Journal of the Institute of Planners, the Public Administration Review, Policy Studies, and Signs. Among the special-issue topics have been energy and the cities, neighborhood reinvestment, and housing finance mechanisms. In addition to these initiatives, PD&R will continue to:

-- assemble and distribute information kits on special subjects,

-- send exhibits to national conferences of special interest groups,

-- arrange national marketing of outstanding publications (such as has been done for In the Bank...or Up the Chimney, The Homebuyer's Information Package, and The Energy-Wise Home Buyer), and,

-- prepare bibliographies on special subjects for particular constituencies such as State and local governments.

Also expanded in 1981 will be the successful "translations" for the general public of some of HUD's highly technical research. The 1979-80 series, How Well Are We Housed?--volumes which describe in clear English the housing conditions of Hispanics, blacks, female-headed households, the elderly, rural, and large households--arose from an analysis of data available in more abstract form in the report of the Annual Housing Survey. Paralleling this widely distributed series will be others of similar purpose drawn from additional areas of PD&R's work.

*U.S. GOVERNMENT PRINTING OFFICE: 1980-0-721-093/122